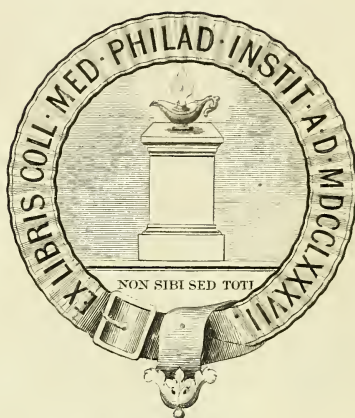


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THE
AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF
MEDICINE AND SURGERY.

EDITED BY

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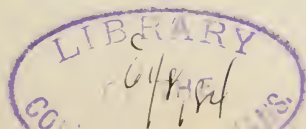
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THE AMERICAN PRACTITIONER

JANUARY, 1883.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

STUDIES OF SOME OF THE REFLEXES, THE NODULAR, THE PECTORAL, AND VASO-MOTOR.*

BY WILLIAM CARSON, M. D.

One of the Physicians of the Cincinnati Hospital and Lecturer on Clinical Medicine.

At the present time considerable attention is being given to the study of reflex action, as shown at different parts of the body and limbs. These reflexes, or at least a number of them, are considered to represent actual values in the diagnosis and prognosis of some nervous diseases. Our purpose now is to revive some old studies of what might now be called a cutaneous reflex, specially manifested in chronic diseases of the lungs, and to make mention of two other forms of reflexes, one of which is not new in practice, but may be reviewed with some interest in the present aspect of such studies.

In 1872, in a paper read before the Cincinnati Academy of Medicine, we referred to some peculiar results of percussion over diseased lungs in cases of phthisis. It is that of nodular elevation, after a quick, sharp stroke of finger or hammer, about the size of a large shot, which travels from the point of percussion to varying distances in a direction corresponding in a general

*Read before the Cincinnati Medical Society.

way with the fibers of the pectoral muscle, and then disappears. It may be produced most readily over the second or third rib, and will follow sometimes closely the rib. It is not easily developed over the body of the muscle. Sometimes a long, quick vertical stroke from the clavicle at its inner third to the body of the muscle below will develop a continuous elevation along the line of rubbing, which will for a moment remain stationary and then disappear, leaving behind occasionally the "red-line" reaction. It is a very common thing in phthisis, and we believe it to have a corroborative strength in the general group of physical signs belonging to the case. It is generally more marked over the lung most affected. We find it in some individuals who present a minimum of physical signs, and it may then supplement a hesitating judgment. I would also take it as an indication not only of increased irritability of contractile elements beneath, but of failure of nutrition. Lawson Tait, however, found no change in an examination of some pectoral muscular fibers. A comparatively thin subject is necessary for its development. Viewed as an evidence of increased local irritability, greatest on side of most disease, it is an interesting exhibit of the effect of chronic pulmonary changes on the adjacent segments of the spinal cord or the so-called trophic system of nerves.*

There might be some question as to whether this is a true reflex or simply a local manifestation, but its physiological aspects seem to lie in the region of muscular irritability. Auerbach, according to Tait, measured "the rate of traveling of the divisions of the primary nodule," and found it to be about eighteen inches per second. The reference here is to the fact that sometimes you have a secondary wave and nodule following the primary.

According to Graves, who first described it, Stokes, and Tait, the clinical significance is important because of its association with consumptive diseases. The latter states that it may afford a means of distinguishing between acute phthisis and typhoid fever.

*Dublin Quarterly Med. Journal, Vol. 52, 1871, p. 319.

Along with this "myoidema," as Tait named the nodular percussion sign, there is, as we think, closely associated the "pectoral reflex." Gowers* does not, in his enumeration of the "reflexes," mention this one. Ross does mention it, and attaches some importance to it. It is a thing we have often called the attention of students to, and spoken of it as bearing about the same relation to phthisis and wasting diseases as the nodular reflex. It is produced by a stroke of the finger or hammer on the sternal attachments of the pectoral muscles, when will be observed a quick contraction of some of the fibers, varying in mass and number so that there is a movement of the anterior axillary margin in varying degrees. In a man with pyloric cancer, who is much wasted, there is a jerk of the whole shoulder. Usually when the "myoidema" exists the pectoral reflex also is easily produced. It will appear in a variety of conditions. Phthisis, cancer of pylorus, acute alcoholism or debauch, cervical paraplegia, chronic bronchitis with emphysema are some of the diseases in which we have found it in excess. Its physiological interpretation is the same as that of other skin or muscle reflexes.

Tait has called the nodular elevations and waves "idio-muscular," or produced in the muscular fibers without the intervention of any reflex arc; and if that be so, they are not properly classified among the reflexes; yet they may serve as practical a purpose in localizing a chronic disease of the lung. The "pectoral movement" can properly be classified as a reflex, because the afferent impression is made on either the tendinous attachment of the fibers or some of the adjoining fibers, and a movement follows, not by continuous motion, but by reflected paths. Take the two phenomena together, the nodular and the pectoral, and they would seem to add mutual strength, particularly as they are often combined in phthisis. In these cases they not only point to local disease, but they are indices of the general tendency to failures in nutrition.

Of vaso-motor disturbances or reflexes (if that term be the

* Diseases of Spinal Cord, 2d edition, 1881.

proper one), the one most utilized for diagnostic and prognostic purposes is that upon which Trousseau laid so much stress in what he describes as "cerebral fever." He was the first to call attention to it, and, as he says, more than twenty years before his description of it in his lecture on "cerebral fever." It seems proper, now that active study of all reflexes is being pushed in practical medicine, that this should be classified among the vaso-motor reflexes. His description is as follows of "cerebral or meningeal macula": "If, after exposing the patient, his skin be gently rubbed with a hard body, such as a pencil, or simply with the nail, the part touched rapidly becomes of a bright red color, which persists for a more or less prolonged period—eight, ten, or fifteen minutes." Again, when speaking of a child's case, he says: "When I very gently made on her abdomen, with my nail, cross markings, longitudinally and transversely, in less than half a minute the portion of skin which I had touched was suffused with a very bright red tint, which was diffused at first, but grew by degrees fainter, leaving along the track where the nail had passed lines of a deeper red color, which persisted for a pretty long time. This is what I mean by cerebral macula." He thought this symptom of great importance, yet he says "it is not of absolute value when the differential diagnosis of cerebral fever has to be made."

Some of his contemporaries disputed its great significance, and yet it has been accepted as a very important indication of tubercular and other forms of cerebral meningitis, if we may judge by references to it in descriptive medicine, and also by our own observations of reliance upon it by practitioners generally. Trousseau acknowledged he had produced it in typhoid fever and exophthalmic goitre. Of a particular case of the latter he says: "If the epidermis be slightly irritated, after two seconds at most, a beautiful red stain is seen, which lasts nearly a minute." Further: "Now my opinion is that these three phenomena, acceleration of the pulse, rise in temperature, and cerebral macula, are of the same kind, and are traceable to the same

cause, namely, some deep modification affecting the sympathetic and vaso-motor nerves in particular," etc.

Like most physicians, we have been accustomed to attach a good deal of importance to the "red line." Without any desire to divest it of all proper significance, we yet think it needs qualifications, as the following statement of some experiments in the wards of the Cincinnati Hospital will show. Out of thirty cases taken indiscriminately, twenty-eight exhibited the red line more or less rapidly and distinctly. The diseases were: Typhoid fever, nine cases, and one where a question between acute tuberculosis and typhoid fever arose—in this case it was present; phthisis, five; pneumonia, two; basilar meningitis, one; acute alcoholism, three; cancer of pylorus, perihepatitis, syphiloma of brain with right hemiparesis and ocular paralysis and iritis, cervical paraplegia, chronic bronchitis with emphysema, cerebro-spinal meningitis, brain tumor, probably cerebellar, and heart disease were the other cases. Of these, the most distinct reactions or reflexes were obtained first from the case with the symptoms of basilar meningitis. If we were to accept Trousseau's dictum, it would be decisive of the diagnosis; yet there are some points of doubt, maintained in part by the fact that the case is without fever. There are, however, suspicious ophthalmoscopic appearances, such as an unusual number of vessels coursing in every direction, and a want of definition of one side of the disc in one eye. The apparent increase of vascularity Dr. Ayres thinks may be due to the want of pigmentary matter in the choroid by which the vessels are brought into view, that otherwise would not be seen.

It is desirable that in just such a case we should have all the reinforcement which we can get. I think the rapid production and long continuance of the reflex in this case does add confirmatory if not conclusive weight. In some cases we timed the beginning, the height, and duration of the red color. In the basilar-meningitis young man the red line began to appear in eight seconds, reached its maximum in about twenty seconds, and began to fade in one minute ten seconds. Its greatest width

was half an inch. The other case of suspense of opinion between acute tuberculosis and typhoid fever, in which there has been delirium, showed the beginning of the reflex in about five seconds over left pectoral muscle (the left lung showing predominance of physical signs), and in about fifteen seconds over right pectoral. The line was well marked, but not so broad or persistent as in the above case. Next to these cases the typhoid fever ones showed a quicker and more developed reaction; yet between typhoid fever and meningitis we must not unfrequently hesitate. That is a question we have had before our society quite recently. The presence or absence of indican may help us, but it remains to be seen whether the red line will. Now it is at least doubtful.

One of our alcohol cases was a very well-developed man, and yet on both sides the lines were well marked over the pectorals. (In the man with cervical paraplegia, aged sixty-one, who is remarkably anemic, no red lines are producible.)

A man with pyloric cancer and great emaciation and pallor showed no reaction. In case of bronchitis and emphysema, where there has been only moderate loss of flesh, the line was very narrow, began in fifteen and attained its maximum in thirty seconds.

In general, the cases with the most pronounced brain symptoms showed most distinctly the vaso-motor reflex. We can find some explanation of this, so far as basilar meningitis is concerned, in the fact of the close proximity of the general vaso-motor center in the medulla to the basic lesion; and so far as meningitis of the convexity and other parts of the brain is concerned, in the connection of the medullary center "with certain definite regions in the cortex of the brain. These vaso-motor centers are (as to dogs Eulenburg and Landis) situated in the vicinity of the voluntary motor centers of the cortex."*

In typhoid fever arterial tonus is lowered by the special influences at work, and then secondary effects, such as passive congestion of the brain, thereby introducing a similar susceptibility

*Ross on Diseases Nervous System, Vol. I, p. 184.

to the vaso-motor reflexes of primary brain lesion. It is scarcely necessary to refer to the experimental evidence of the effect of artificially-produced lesions about the medulla on vascular innervation, etc.

We bring these subjects before the society in connection with a case of locomotor-ataxia, a disease which has stimulated much of the study of the reflexes in diseases of the nervous system. It will be seen that the special aspect of the subject of our paper is in connection with diseases of the lungs.

CINCINNATI, O.

PRIMARY CANCER OF THE LUNG.

BY G. W. H. KEMPER, M.D.

In the July number of this journal, for 1882, page 13, may be found a paper on the above-named subject, which I read before the Indiana State Medical Society, May 10, 1882.

In that paper I mentioned the fact of the meagerness as well as the unsatisfactory descriptions of this disease in our textbooks. Since the date mentioned I have received the New Sydenham Society's "Stokes on Diseases of the Chest," edited by the late Dr. Hudson.

As this work is accessible to comparatively few of the readers of this journal, I have thought it proper to call attention to some points made by this master of our art upon the subject of cancer of the lung, relating more especially to the diagnosis. Thirty-seven pages are devoted to a consideration of the disease, and the whole article is replete with good sense.

On page 385, he says: "Cancerous disease of the lung is met with in two forms; in the first, a degeneration of the lung occurs and the organ is transformed into a cancerous mass, without the production of any tumor; in the second, the scirrhous or encephaloid matter forms a tumor, at first external to, and

ultimately displacing the lung. In neither case can we apply any direct diagnosis; and I do not know how the first could be determined with certainty. The symptoms are always obscure, and the physical signs being merely those of solidity, more or less extensive, the greatest difficulty exists in making an accurate diagnosis. Repeated observations indeed might lead us to doubt whether the lesion was any ordinary disease, and the existence of external cancer would give a probability that the internal affection was of the same nature. But in a case seen for the first time, and in which no such external disease existed, we have no means by which its nature could be positively determined."

On page 396, at the beginning of Part II, he refers to the above language, and at this later date writes as follows: "Since that period, however, I have been enabled to arrive at a direct diagnosis of the first form of cancer. I have also been fortunate enough to meet with a remarkable case of ulcerated cancer of the lung, and have extended my observations upon cancerous tumors within the thorax. So that we can now affirm without presumption that, in many cases of this disease, whether it affects the lung simply or occurs as a mediastinal tumor, a direct diagnosis can be arrived at. By direct diagnosis, I mean the discovery of the internal disease in such cases where there is no recognized cancer in other situations, such as the mamma, uterus, extremities, etc." In other words, primary cancer.

I may give his own summary of the diagnostic marks: "That in simple cancerous degeneration of the lung the principal physical signs are the gradual diminution of the vesicular murmur without râle, its ultimate extinction, and the signs of perfect solidification. That the evidences of perfect solidification are better found in this disease than in any other pulmonary affection." "Also pain of a continued kind; a varicose state of the veins in the neck, thorax, and abdomen; edema of one extremity; rapid formation of external tumors of a cancerous character; expectoration similar in appearance to currant jelly;

resistance of symptoms to ordinary treatment. That, though none of the physical signs of this disease are (separately considered) peculiar to it, yet *that their combinations and modes of succession* are not seen in any other affection of the lung."

In my former paper I stated that, contrary to a rule laid down, that in cancer the percussion dullness does not begin at the bottom of the chest—the reverse may be true—and that no fixed rule prevails. Stokes has observed the disease spread from below upward.

In my own case, in the article referred to, a cervical gland just above the right clavicle enlarged to the size of a hen's egg. Stokes mentions a similar complication and cites further references to cases observed by Graves. These external tumors were not confined to the cervical region alone, but appeared upon the forehead, ramus of the lower jaw, and on the lumbar spinous processes. "They were unaccompanied by pain, soreness, or any inflammatory phenomenon."

I stated that dyspnea was a common symptom, and was especially valuable in a diagnostic point when associated with edema of the chest and upper extremities. A study of the cases narrated by Stokes increases my faith in the value of this pair of symptoms. Given a case of obscure lung-disease with edema of the corresponding arm, enlarged superficial veins of the neck, chest, or abdomen, and accompanied with dyspnea, and we could scarcely hesitate to declare upon these symptoms alone that the lung was cancerous.

In Stokes's cases, as usual, no characteristic expectoration is recorded. In one case he observed "the peculiar currant-jelly-like expectoration." This is a stereotyped expression used by authors in describing the sputa supposed to be characteristic of cancer of the lung. A somewhat careful study of the details of numerous recorded cases leads me to suspect that the phrase is found far more frequently in didactic descriptions than the sputa is found in clinical cases.

Finally, I may mention that he considers the transmission of

the impulses of the heart over the diseased side a symptom of some value ; also the fact of a patient being attacked with severe symptoms of pulmonary disease which resists ordinary treatment.

MUNCIE, IND.

A FEW WORDS ON PERINEORRAPHY AND PERINEOPLASTY.

BY THEOPHILUS PARVIN, M.D.

Though perineorrhaphy and perineoplasty are commonly used as synonyms, their etymology shows an important difference in meaning. Perineorrhaphy really means the immediate or primary operation for a perineal rupture ; the operation consists of simply introducing sutures which shall hold together freshly lacerated surfaces ; but perineoplasty is strictly applicable only to the remote or secondary operation, in which the surfaces to be united must first be denuded, freshened in order that they may grow together when properly kept in contact by the subsequently introduced sutures. The words happily express this important difference which, when they are used synonymously, can only be expressed by a circumlocution. This etymologic difference in signification will be observed in the present paper.

It is not my purpose to consider the causes of tears of the female perineum nor the many methods of treating such lesions, but rather to urge upon those who practice obstetrics the importance of making a careful visual examination of the parts immediately after labor, and if a tear, no matter though it be slight, be found, of at once performing perineorrhaphy.

The frequency with which tearing of the perineum occurs in labor is an unsettled question, partly, as suggested by Spiegleberg, *Lehrbuch der Geburtshülfe*, because of individual differences as to what should be thus called, but chiefly because the great

majority of practitioners never find out immediately after labor, in the only way possible, by the eye, whether the perineum is whole. Spiegleberg states that, by his own statistics, tears of two and a half centimeters from the frenulum occurred one hundred and two times in three thousand births; but a tear of less than two and a half centimeters may be followed, if not treated properly at the right time, by immediate or remote injurious results. In the statistics given for another purpose by Dr. Sinclair, Transactions of the American Gynecological Society, Volumes V and VI, it appears that the perineum was torn once in between five and six cases; true, many of these tears were slight, but still there was quite a number in which the injury was great. Mintert (*Annales de Gynécologie*, November, 1882) says that perineal rupture occurs in general in fifteen per cent, in twenty-five per cent of primiparæ, and in fifty-three per cent of primiparæ more than thirty years of age. By the way, this author also states that the suture is the only good means of treatment, even where the rent is slight. The probability is that perineal tearing is much more frequent than generally believed by the profession.

It is said that Trotula first, though vaguely, suggested the operation for ruptured perineum; but it was first clearly set forth by Paré, and then first performed by his pupil, Guillemeau. Sprengel, in his History of Medicine, credits it to Mursinna, 1797.

Differences of opinion have obtained in the profession as to when the operation for ruptured perineum should be done: Velpeau, for example, urged waiting until the woman's health was restored; others advised operating from the fifth to the tenth day after labor, and still others operating immediately after the injury. The last rule is now, by common consent of the best authorities, the one which should be observed. It has been proved that the great majority of those thus operated on are cured, while but a small minority of those left to nature are; and at the same time those thus left without professional intervention are more liable to septicemia. Usually the restoration of

a torn perineum, when stitches are not used, is only partial and by cicatricial tissue, often presenting an irregular or a very sensitive surface.

During the last nine months I have performed perineorrhaphy five times, and in each case the result was quite satisfactory. In one of these cases the rent was a little more than a centimeter in length, and only a single stitch was used; in three the rent extended to half the perineum. The fifth case was one of especial interest, from the fact that not only was the perineum torn to the anal sphincter, but there was also a rent at the left side of the vulvo-vaginal ring separating the nympha almost completely. My visit to this patient, a primipara, was just after she was delivered, without instruments, of a very large child, and I had come with forceps to deliver the child, not with silver wire to care for a torn perineum; however, being requested by the gentleman in charge of the case to operate, I took the only material for sutures immediately available, hair from a horse's tail, and used five stitches for the perineal tear, then three for that of the nympha. After the stitches were tied I separated the patient's knees some eighteen inches, and there was not the least tension upon any of the stitches; of course then the customary bandage about the knees was not used. I am confident such bandage, a very great discomfort to the patient, is utterly unnecessary after perineorrhaphy, and it is probable it may be dispensed with also after perineoplasty. Probably horsehair is as good as any material for sutures in perineorrhaphy, but the stitches ought to be a little nearer together, and therefore one or two more will be needed than those of silver wire.

My experience is adverse to the use of catgut, for the pressure of the knots causes ulcerations, slight it is true, but still giving the patient some discomfort.

Hildebrandt, Billroth's *Handbuch der Frauenkrankheiten*, was, I believe, the first to suggest, 1877, the non-use of the catheter after an operation for the restoration of the perineum; he states that catheterization is unnecessary, and is liable to cause vesical catarrh. While, after perineoplasty, the catheter as a rule need

not be used, it probably will be found necessary in most cases for the first few days after perineorrhaphy.

Most operators agree that after either operation no effort should be made to have the bowels confined, but rather have them moved daily by an enema, and probably the best for this purpose is one of flaxseed tea; in cases of perineorrhaphy action of the bowels had better be delayed till the second or third day.

When *partial* healing, which is the rule in perineal tears left to nature, occurs, it is not unusual to find a raw, sensitive surface at the anterior margin of the restored portion, a surface which becomes painful when the patient walks much, and is intolerant of coition. So too such a condition sometimes is not uncommon after a slight tear, one which, according to most obstetric authorities, the practitioner is quite justified in leaving to the healing of nature. Dr. Reamy, Transactions of the American Gynecological Society, Volume II, has, with his well-known ability and by a startling array of statistics, presented the importance of the slighter varieties of perineal lacerations, giving as one of the mischievous results of these injuries the condition just mentioned. My own experience is that it is the most serious result. During the present year I have performed perineoplasty in four cases of this minor laceration of the perineum; in all but one of these patients the injury happened some years before. How much better if all such patients were operated on immediately after the tear occurred!

After a perineoplasty where but a small part of the perineum was involved in the injury, it surely is unnecessary to bandage the knees together; it probably is unnecessary in any case—but I have not had a case of complete rupture to treat since giving up the appliance after perineorrhaphy, and therefore can not make the statement positive; it is better for the patient to lie on one and then on the other side, occasionally lying upon her back when weary of a side position, but only thus when awake.

Perineoplasty will become very much less frequent if perineorrhaphy is the rule of the obstetrician.

Reviews.

Manual of Obstetrics. By A. F. A. KING, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and the University of Vermont, etc. Philadelphia: Henry C. Lea's Son & Co. 1882.

The author in his preface states that "the chief purpose of this book is to present, in an easily intelligible form, such an outline of the rudiments and essentials of obstetric science as may constitute a good ground-work for the student at the beginning of his obstetric studies." He further states that he has "most largely depended upon the recent treatises of Leishman, Playfair, and Lusk in dealing with matters that are still unsettled." He also suggests the volume may be of service to practitioners whose onerous duties allow but little leisure for consulting larger works.

This volume is a duodecimo of 325 pages, including the index, and has fifty-eight illustrations.

Dr. King attempted a difficult task, viz., putting the essentials of obstetric art and science in such brief space, and we believe he has succeeded remarkably well; he has made a book which will prove useful alike to the student and to the practitioner. Nevertheless there are, both in the scientific and in the practical teaching, some things from which we must dissent.

On page 29 we find the following: "Complete ossification of the pelvic bones does not take place till about twenty years of age, which affords a probable explanation why labor is generally more easy during the early part of adult life than later. The bones yield a little, and after labor is over the pelvis probably retains to some extent the size and shape acquired by the first

easy delivery, so as to render subsequent labors more easy." Now, if we understand this, the obvious moral is, women should enter on maternity before they are twenty years of age, if they would have easy labors. But apart from all social considerations, bearing children ought to be postponed until twenty years, for only then, as a rule, has the pelvis attained its perfect development.

On page 38 the figure of 8 arrangement of the vaginal and anal sphincters is taught. If we are to believe Savage (Anatomy of the Female Pelvic Organs), no such crossing of muscular fibers is found here.

Dr. King states that the *carunculæ myrtiformes* are "vascular membranous prominences placed immediately behind the hymen, and quite independent of it." On the other hand, in the work of Tarnier and Chantreuil, now in publication, it is said the *debris* of the hymen when cicatrized form the *carunculæ myrtiformes*: this too is the common teaching as to the origin of these bodies.

The functions of the oviducts are, according to our author, to convey spermatic fluid from the uterus to the ovary, and the germ cell from the ovary to the uterus; it is said that when the ovule is discharged from the ovary the *fimbriæ* of the tube, acting as *prehensile* lips, grasp the germ and force it into the trumpet-shaped mouth, etc. There is no proof that the spermatic fluid passes to the ovary; and so far as even the spermatozoids ordinarily going that far, the matter is doubtful, for it is almost certain that impregnation generally occurs in the external part of the oviduct. The way in which the ovule enters the oviduct is, to say the least, very improbable, for to grasp an object only one hundred and twentieth of an inch in diameter by these fimbriæ so widely expanded as to embrace a large part of the ovarian surface, would be like building an elephant-trap to catch a mosquito: there are better explanations of the way in which the ovule enters the oviduct. The description of the structure of the ovary is not good. If the author would read Sappey's description, to which reference was made in our notice

of Dr. Lusk's work, we are sure he would renounce the *tunica albuginæ*, and the *stroma* with its "dotted cavities" containing Graafian vesicles.

The number of milk ducts is said to be fifteen to twenty, but according to Sappey there are only ten to twelve.

On page 61 spermatozoids are said to be ciliated epithelial cells; they enter the ovule, the union taking place in the womb, oviduct or in the ovary, probably most often in the ovary. Now here, it seems to us, are some mistakes which ought to be corrected. The spermatozoid is not a cell; only one spermatozoid enters the ovule, and indeed only its head; the tail, which was its locomotive power, is left outside, just as the traveler leaves his horse outside when he enters a house; if by rare chance a second spermatozoid sticks its head in, the result is a monstrosity. It has been proved that in the rabbit fecundation takes place in the oviduct, and it is probable, according to Duval (thirty-third volume of the *Nouveau Dictionnaire de Medecine de Chirurgie Pratiques*. Paris, 1882), that the spermatozoids are retained in the *morsus diaboli* or folds of the pavilion, awaiting the passage of the ovule; impregnation in the uterus is generally rejected because of degenerative changes which have occurred in the non-impregnated ovule before it arrives there. We might find fault with the author's "suctional aspirations" by the uterus to which, in part, he attributes the entrance of the spermatic fluid into this organ, but we pass on to refer to the statement that "it should be remembered the germinal vesicle and germinal spot disappear before the cell leaves the ovary, so that we have nothing to deal with in this description but the simple vitelline membrane with its contained granular nucleus." Recent investigations show that the germinal vesicle does not disappear, that after the formation of the polar globules to which it contributes there still remains a nucleus, that which is known as the *female pronucleus*, and when these changes have occurred the egg is mature and ready to leave the ovary.

In describing embryonic development the author makes the primitive trace the same as the dorsal furrow; the former ap-

pears before the latter, but they are independent and occupy different parts of the *area germanitiva*. Dr. King says: "Some women date impregnation, and often correctly, from unusual gratification during a particular act of coition." As insemination and impregnation are probably separated by several hours, or by some days, we believe this statement, which has derived its vitality almost altogether from Cazeaux's indorsement, ought to be consigned to the popular fallacies rather than kept among professional beliefs.

Among the many remedies recommended by the author for the nausea and vomiting of pregnancy, one of the best, tincture of *nux vomica*, is not mentioned.

Is not Dr. King mistaken in alleging habit as a cause of abortion? Habit did not begin the series, and why should it be called the cause of the middle and last of that series when it had nothing to do with the first?

To attribute abortions to habit gives no satisfactory explanation. We can not believe that a brisk purgative or an emetic is in any case proper treatment of incomplete abortion.

The author says that "it is well always to give a teaspoonful of fld. ext. of ergot immediately after the child is born, or a few (fifteen) minutes before, when we are certain the child will be born so soon, to insure contraction of the womb and expulsion of the placenta." It is probably better not to give ergot until after the delivery of the placenta, certainly not until after that of the child. In describing the mechanism of labor, vertex presentation, the delivery of the shoulders is said to occur with the posterior first; but if the perineum be perfect, the anterior or pubic shoulder is delivered first. The author agrees with Matthews Duncan and Albert H. Smith in rejecting lateral or pendulum movements of the obstetric forceps; but this is still an unsettled question; nevertheless we greatly doubt whether such movements will be or ought to be abandoned.

A cut of Tarnier's forceps is given, but unfortunately it is not that of the last form given this admirable instrument.

We are glad to see that Dr. King prefers ether to chloroform

as an anesthetic in labor, and that he believes an anesthetic should be given in the second stage if the suffering be great; we would not, however, limit it to the second stage, for in some cases it is needed and is peculiarly useful in the first stage.

The last chapter is entitled, *The Jurisprudence of Midwifery*. It is an excellent one, full of valuable information. There is, however, one statement in which Dr. King will not be sustained by some of the most eminent and able of living obstetricians; it is this: "It is undoubtedly possible for pregnancy to be prolonged four, five, six, seven, and even eight weeks beyond the natural period, and the child be born alive."

We end our hurried and imperfect review with sincere wishes for the success of this condensed and practical volume.

The Psychology of the Salem Witchcraft Excitement of 1692, and its Practical Application to our Time. By GEO. M. BEARD, A.M., M.D., Member of the New York Neurological Society, of the American Neurological Association, etc.; Author of "Neurasthenia," "American Nervousness," etc. New York: G. P. Putnam's Sons. 1882. 12mo. Pp. 112.

If any one wants to see a mental picture of the times of the Salem witches framed in a screed from Dr. Beard against the court, the jury, the witnesses, and the attorneys who were instruments in helping Guiteau to the gallows, he should purchase and peruse this little volume and be gratified. Indeed one gathers the idea from reading the book that its author selected the theme of the treatment of the Salem witches, with its incrustation of odium which has been integrating for two hundred years, that he might have in this repulsive picture something worthy as a paradigm to illustrate the ignominy of a judicial organization which brought Guiteau to a felon's death, and of the press and the people who approved of, or were in sympathy with, the result.

A quotation will at once indicate the spirit and portray the style of the author, e. g. from page vii of preface: "There are times in the evolution of delusions, and in the history of nations in which delusions are organized, when non-expertness on any special line, long restrained through circumstances or negligence, becomes a volcano; the low mutterings and reverberations that are at once so frequent and so slight, but so harmless as to cause no alarm, suddenly cease, and from the long quiet crater an eruption appears, darkening the sky and burying the earth in its fiery streams. Such was the witchcraft excitement in Salem in 1692; such was the Guiteau excitement in Washington in 1882; the one marking the death of the dogma that the innocent should be condemned to death for the fancied crime of witchcraft on specter-evidence; and the other marking the death of the dogma that ability to know right from wrong is proof of responsibility, and that the insane who commit murder should be hanged."

The psychological wickedness of this dogma, that ability to know right from wrong is proof of responsibility, makes the darkest possible stains on the judicial ermine, under which it originated and where it still finds its secure rest. This seems to be the sentiment of Dr. Beard, and one is led to infer from the oft-repeated declaration that he was ready at all times, both during the trial and after, while the case was before the court in banc and within the pardoning power of the President, to point out just what each of these repositories of power should do in the premises, and was not called on nor permitted to give controlling testimony of Guiteau's insanity, that all parties concerned are disgraced for all future time. The dominant idea of the author in this connection one finds to be that, if Guiteau were shown to be aberrant in one faculty of his mind, for example, in his religious views, he might deliberately plan the murder of the President, preparing in advance for his own safety, execute the plan and demonstrate the completeness of his arrangements for the purpose intended, and only failing in the end of his expectation of pardon, he should be held to be guiltless of any crime against

society for which he should suffer. Surely such an idea is not founded in the highest evolution of the human mind, and apparently ignores or misjudges the present purposes of human life. Undoubtedly the insane have rights, but the sane also have rights, and the tendency of such self-sufficient and domineering specialists as our author is to so order affairs that the former shall be paramount and the latter secondary. And, furthermore, there must be something short in the upper plane of the mental endowment of him who recognizes no difference in the psychological state of those who tried, condemned, and executed the Salem witches in 1692, and those who tried, condemned, and executed Guiteau in 1882.

It must not be surmised from the foregoing remarks that Dr. Beard's book is all Guiteau and no witches, for there is in fact much about the witches, and the reader will find a good deal of it edifying.

J. F. H.

Rheumatism, Gout, and Some Allied Disorders. By MORRIS LONGSTRETH, M.D., one of the attending Physicians of the Pennsylvania Hospital, Lecturer on Pathological Anatomy at the Jefferson Medical College, Philadelphia, Penn. New York: William Wood & Co. 1882. Pp. 280.

This, the October issue of Wood's Library of Standard Medical Authors, is a fresh book on a very interesting pathological condition, by an intelligent gentleman who has given a quite full narrative history of the various theories which distinguished physicians have held concerning rheumatism since the recorded dawn of medicine, and continuing the story to include even the speculations of the most recent coining. In presenting the causes of rheumatism he acknowledges the inadequacy of any thing yet promulgated, and while he names many, apparently does not pin his faith to any, and in the chapter on pathology he alleges that the greatest number believe in the lactic-acid idea, but fairly enough recounts the objections to it, but does

not refer to the argument of Maclagan, who certainly gives most conclusive reasons why the famous doctrine of Prout, reinforced by Todd, must be abandoned. In referring to the germ theory, which he does under the head of "Infection Theory," credit is given to Muller and Hirsch for the suggestion of it, and no mention is made in this connection of Maclagan, although it is quite certain that the author is familiar with Maclagan's late work as, when he comes to treatment, he quotes and credits fully Maclagan in regard to the management of rheumatism with the salicyl compounds. Perhaps the reason why our author dwells so fully on Maclagan's therapeutics and says so little about his views on the pathology of rheumatism is because the medical world have with great unanimity fallen on Maclagan's salicyl treatment of the disorder, not troubling themselves at all as to whether the malarial bacteria have any agency in causing the disease.

On page 7 the author gives an eight-line definition of rheumatism which might lead one to suppose that he regarded what goes under this title as a homological pathological aberration, but a further reading of his text convinces that it would be an erroneous supposition, for in the subsequent pages he fully recognizes the multiple and diverse character of what is called rheumatism, though it is doubtful whether he insists with sufficient earnestness on the wide destruction in the cause, nature, and termination of some of the members of the great family of disorders known as rheumatism. The high distinction of scientifically separating and marking for future management the various disorders now called rheumatism is still open to the successful energy of some wise pathologist.

The student will find Dr. Longstreth's book a very complete treatise on the subject of rheumatism, briefly covering the changing views of the profession from the beginning to the present, and fairly presenting the prevailing ideas of its causes, its pathology, and its treatment, giving point and emphasis to such views concerning it as seem to have the strongest claim to consideration with the best intelligence of the present generation of doc-

tors, but candidly acknowledging that there is much to learn before we can claim that our knowledge in this behalf is perfect.

The practitioner who may desire to refer to the volume for some specific purpose may possibly have reason to complain of something of diffuseness in style and something of imperfection in arrangement that makes it a little more tedious to reach his point than is most agreeable.

Dr. Longstreth's presentation of gout is confined to the final chapter of his book, containing twenty-seven pages, but, nevertheless, the aristocratic disorder is marshaled in good order and handled with sufficient detail to give the reader an intelligent understanding of its essential features. J. F. H.

A Practical Laboratory Course of Medical Chemistry. By JOHN C. DRAPER, M.D., L.L.D., Professor of Chemistry in the Medical Department, University of New York, and of Physiology and Natural History in the College of the City of New York. New York: William Wood & Co. 1882. Pp. 71.

This is a neat little volume in note-book form, with each alternate page left blank for the student to use in recording his experiments as he makes them. A larger type points out to the student the exact experiments he ought to make, and these exercises are so arranged that if intelligently and strictly followed the inquirer, when the course is completed, will have excellent knowledge of so much medical chemistry as is demanded in the general practice of medicine. The introduction defines terms and lays down some general principles. Section I treats of poisons, inorganic and organic, what they are, and how to find them for diagnostic and therapeutic purposes, very properly advising that when toxicological investigations are to be made for judicial purposes and defended in courts the service should be left to experts. Section II points out how to find impurities in water, what they are, and how to correct them—a bit

of information sadly needed by many a practitioner, that something approximating exact knowledge may take the place of the loose fancies so often uttered by M.D.s in favor or in condemnation of water about which interested parties make anxious inquiries. Section III is devoted to the animal fluids, running through the whole catalogue. The author's presentation of urine will be found exceptionally clear and satisfactory, giving first the normal constituents and their variations within the limits of health, and then the ingredients due to pathological changes with the simplest reliable means of detecting and measuring them. This part of Section III will be prized by many a practitioner who has heretofore given little attention to the examination of urine, but under the pressure of a demand for greater exactness in diagnosis, and of the requirements of some insurance companies of their medical examiners, feel the need of some plain and reliable instruction in the premises. Section IV, and last, is given to the consideration of sediments and calculi, covering the whole range of these solid products of vital activity, whether physiological or pathological. After the sections come an "Alphabetical List of Symbols and Formulæ," "Arrangement of Laboratory," and an index.

For a small book this one contains a large amount of information of value to students and a certain class of practitioners, and to these it is heartily commended.

J. F. H.

Clinic of the Month.

CLINICAL OBSERVATIONS ON ALBUMINURIA, BASED UPON A STUDY OF SIXTY-TWO CASES SEEN IN PRIVATE PRACTICE.—By Arthur V. Meigs, M.D.,* Physician to the Pennsylvania Hospital. We wish our space allowed us to give this really valuable paper in full rather than in the following abstracts :

That which has most impressed me in this case is the impossibility of making a prognosis, with any degree of exactitude, in most cases of Bright's disease. Of course, in the plainer ones the decision is easy; if asked an opinion in a case with a large, or even moderate amount of albumen in the urine, with increasing heart failure, and evident decline of strength and vitality, with headaches and the peculiar white complexion of the disease, it is easy to prophesy that such a person will not live, and the prophecy, nine times in ten, comes true; if called, however, to decide questions of the future for a young man of thirty-two or three, previously well, but for some weeks complaining of headaches, malaise, and boils, and then examination of the urine shows a slight amount of albumen, granular and hyaline casts, and abundance of rather small oxalates, the question of the future is not so easily decided. I have seen such cases go on pretty well for a few months, then suddenly have convulsions, and die in a few days. Again, persons presenting identical symptoms, after being sick a few weeks or months, entirely recover. To my mind it is impossible, in the present state of our knowledge, to anticipate the future, and the patient should always have the benefit of the doubt, and should be shown the brighter rather than the darker side of the picture.

I know of three persons in whose urine I have found albumen and tube-casts, accompanied with all the other signs of Bright's disease, more than eight years ago, who are yet alive. One, a lawyer, was taken sick in January, 1874, with what appeared to be a bad cold, but he had extreme dyspnea and excessive restlessness and nervousness, although he is usually very self-composed. The dyspnea

*Read before the College of Physicians and Surgeons, Philadelphia, Pa., October 4, 1882.

seemed greater than could be accounted for by the extent of disease of the lungs, which amounted only to a moderate bronchitis; the urine being examined, it was found to contain a trace of albumen, some blood, and tube-casts. It should be said that this man had suffered in previous years with attacks of gravel, when he would pass blood and small calculi. Nearly four years afterward there was still a trace of albumen in the urine, and granular casts, showing that the condition was by no means merely temporary. Ever since he is liable to severe cold, and always suffers more than common with oppression, although it usually takes the form of a common coryza. He is now sixty-four years old, and an unusually young-looking, active man of his years.

In contrast with this case, a woman of about sixty was seized in the night, having gone to bed apparently in her usual health, with an attack of oppression, and what her physician called congestion of the lungs, so violent that it was thought she would die at once; she, however, rallied by morning. An examination of the urine, made a few days afterward, revealed the presence of a slight trace of albumen and casts. Four months afterward there was still a trace of albumen in the urine, and granular and fatty casts, although she was up and about as usual, being merely very weak, having no apparently urgent renal symptoms. At a later examination, the trace of albumen was still found, but no casts. About seven months from the first discovery of the disease, she had another violent attack of oppression, and died in a few hours. Now what are the points to distinguish these two cases? One died after a few months' illness, and the other, having had apparently the same complaint and almost identical symptoms, is, after eight years and a half, still alive, and more, apparently unusually well for his time of life.

In December, 1874, a lawyer in full practice, then about fifty-four years of age, was taken with an attack of acute catarrhal pneumonia, and was also found to have albumen and tube-casts in the urine. He was sick all that winter and the following spring, the urine constantly containing albumen and granular and hyaline casts. The albumen and casts were found in the urine during 1875 and 1876, and part of 1877. On May 2, 1877, about two and a half years from the onset of the disease, there was at last no albumen found, and the microscope revealed nothing abnormal. Since that time there has never been found either albumen or tube-casts, and the patient, now a man sixty-five years of age, enjoys very good health, having had no return of the disease in more than five years.

The third case is a woman, whose father, brother, and two sisters have died of the same disease. She has had a trace of albumen and hyaline and granular casts in her urine since March, 1874, when she was about thirty-one years of age. In February last she caught cold, and seemed for some time upon the verge of a severe renal attack, having coryza, so that her nose was almost entirely stopped, and there were bronchial rales heard in the chest, but an amount of dyspnea, seemingly out of all proportion to the extent of the disease, that could be detected by physical exploration; the albumen in the urine also increased very much in quantity. In some weeks, however, she recovered, and this summer seems in her usual health.

The father of this patient had a severe attack of hepatic colic, and passed several gall-stones in 1877, but afterward he continued in pretty fair health for some time. On May 9, 1879, a trace of albumen was found in the urine; this continued to be present at succeeding examinations, but no tube-casts were found at this time, or afterward, although they were carefully sought for, and about December, 1880, eighteen months from the original discovery of his disease, he succumbed to an attack of uremic convulsions, being seventy years of age. A son and two daughters of this man died of the same disease some years before. The son, after having had dropsy, lived for several years in tolerable comfort, until a severe cold proved fatal. With the history of this son and one of the daughters I am not familiar, but the third one I saw, and she died in convulsions. The condition of this person before her final illness, which lasted only a few days, was in no way different from that of her sister, who is still living, and has had the disease for nearly nine years, and the attack which the surviving one had last March was exactly like those in which I have frequently seen other people die. The presence of albumen and tube-casts in the urine, even when found for so long a time as two years continually, is not, as shown by one of the histories I have detailed, a reason why we should necessarily give a fatal prognosis, and this is particularly the case when the patient is a person past middle life. . . .

A very common symptom of renal disease, and one upon which there is not much stress laid in the majority of books upon the subject, is dyspnea. Whenever a patient is found suffering with dyspnea, and particularly if there is great nervousness and loss of self-control and anxiety, with no other fully sufficient cause for its existence, suspicion of renal disease should be aroused, and the urine examined, even if there are no other symptoms whatever pointing toward a lesion of the

kidney. These attacks of dyspnea frequently come on with great suddenness in persons who have not considered themselves sick, and such attacks are often quite rapidly fatal. This condition has been described as renal asthma, but I believe it much more common than is usually supposed. Another symptom of Bright's disease, which I have frequently noticed and have never heard described, is coryza of such a character that it gives rise to very much greater distress than any ordinary cold in the head. With this there is not much discharge from the nose, but the patient complains that he can get little or no air, except through the mouth, this being accompanied with excessive oppression, much more than the condition would seem to warrant. This symptom was first called to my attention by my father, Dr. J. Forsyth Meigs, in a case we saw together about nine years ago. The suddenness of the onset, or perhaps it would be more correct to say, of the discovery of the existence of this disease, is often very great. In one instance I knew of, a young man, previously supposed healthy, was seized with a convulsion while sitting at the supper-table, this was followed by others, and the case ended fatally in a few days. . . . On the other hand, the insidious nature of this disease, and of its onset, is a matter of such common report that I will not weary you with any cases illustrative of this fact.

The existence of oxaluria or of uric acid lithiasis is a prolific source of mischief to the kidney. The deposit of oxalates, or uric acid, in the kidney, and its passage outward, occurs most frequently in persons who are great eaters, living an inert life and taking but little exercise. Such people are common among the rich in large cities, and I have seldom failed to find tube-casts in the urine of any one who passed gravel for any length of time, whether oxalates, or uric acid, even if the calculi were microscopic in size, and this commonly before any albumen was to be found. Later, if there is any considerable amount of gravel passed; albumen and blood will be found in the urine. If the attacks of gravel occur often, they are apt, at least, to be followed by Bright's disease, directly caused, probably, by the mechanical irritation of the lining membrane of the kidney by the sharp edges of the minute calculi passing through them.

It can not be proved by statistics, and yet I think there is strong ground for believing that the proportion of deaths caused by affections of the kidney is greatly on the increase. The tendency of modern life seems to be such that a large number of deaths are caused by degenerative processes, and less by acute disorders. . . .

We should, in all ordinary cases of albuminuria, be very guarded

in our prognosis, except when it is self-evident that the case must be rapidly fatal. I have now under observation fifteen persons, seventeen, if I count two who have albuminuria alternating or parallel with diabetes mellitus, who have been suffering with this complaint for a greater or less length of time. With three of them the disease began nearly nine years ago, and they either have it now, or have entirely recovered from it, after more than two years continued duration; yet in regard to no one of them do I feel able, even in my own mind to guess, much less to formulate an opinion, as to how much longer they may live. There are absolutely no data, if such cases are considered in the light of the experience of the sixty-two I shall mention, upon which to found a positive prognosis.

Another observation I have made is in regard to the deaths of very old people. . . . I have seen a number of instances in which old people seemed to be fading out, as they often do, yet have felt entirely unable to explain to myself any direct cause for the failure, until the urine was examined, when there was found albumen with granular and hyaline casts, and sometimes a few blood corpuscles. A careful inquiry would perhaps reveal the fact that the amount of urine passed was very small, all this without any other symptom to point toward kidney disease; at the same time, the failure of the patient being very gentle and gradual, or else, as not infrequently has happened, senile delirium existed, either violent or mild in type, followed at last by death.

In the whole sixty-two cases, which I will now summarize collectively, there have occurred twenty-six deaths, thirty-four are, to my knowledge, still living, some in better and some in worse health, and of two I have lost sight.

Five were cases of ordinary acute desquamative nephritis, with the occurrence of one death and four recoveries.

Four cases seemed to be caused by the passing of gravel, principally oxalates. These people are still all living, although they have had albumen and casts present in the urine, on and off, for varying lengths of time; two of them for six years past, one for seven years, and the fourth has had two attacks of nephritic colic about a year apart; on each occasion albumen and granular casts, uric acid and blood corpuscles, were found in the urine.

Twenty-two cases I class as of ordinary Bright's disease, there being probably contracted kidney in the majority of instances, and of them fourteen are dead. I made no post-mortem examination in any of these cases. . . .

The next twenty-two cases I must classify as unaccountable; eighteen of them occurred in persons over sixty years of age, and the other four were well on in life; one was over ninety, three over eighty, and two over seventy years of age. Of these people only five are dead, and of the five fatal cases, one was the man over ninety, two were over eighty, a fourth was seventy-seven, and the fifth sixty-seven.

The next four cases were of people advanced in life, and they died of general break-down, having in three instances concurrent disease of the heart and kidneys with implication of the lungs, and the fourth had renal and brain disease.

In two instances there has been albuminuria with diabetes mellitus; in one sugar was discovered in the urine six, and in the other four, years ago. . . .

In one instance I have followed for four years the history of a man who drinks to excess. At the beginning of, and for a time before, his attacks of delirium tremens, while he is consuming alcohol freely, he often has bloody urine, which will contain tube-casts of all the varieties at different times, fatty, hyaline, and granular. When he ceases his consumption of alcohol, as he has quite frequently done for two or three months at a time, the urine becomes normal as far as chemical tests and microscopists' examinations will reveal its condition. In the light of this case, how can we believe that the abuse of alcohol does not produce its renal degeneration? Is not this man sure to die of Bright's disease if he continues his indulgence in alcohol?

Another case was a man, over fifty years of age, who was seized with rheumatism; he progressed badly, and was much more sick than the amount of rheumatism would seem to warrant, and at last, after about three weeks, died, having obstructions of the bowel and inflammation of the kidneys, as shown by the presence of albumen and tube-casts in the urine, also hydrothorax and extreme stupor, which seemed uremic. . . .

There has been much said of later years about kidney disease without the presence of tube-casts in the urine, and of the presence of casts without albumen. I may say that I have frequently found tube-casts in the urine when the most careful chemical examination failed to detect any albumen, and, *vice versa*, have failed to find any casts at all when the event proved the existence of renal diseases.

In conclusion, I will briefly recapitulate the points which it has been my endeavor in this paper to prove :

1. That in no ordinary, uncomplicated case of Bright's disease should a prognosis of speedy death, or even of incurable disease, be given, for I have related cases in which the disease was chronic, lasting more than two years, and which ended in complete recovery, and others in which the person affected has lived nine years.

2. That dyspnea, usually taking the form of renal asthma, is much more common than is usually supposed, and when properly appreciated is a valuable diagnostic sign of the disease; also that severe coryza is a complication or accompaniment, and has a diagnostic value.

3. That Bright's disease as a cause of death is on the increase.

4. That it is a very common cause of the deaths of old people, probably being the direct cause in many deaths reported as of old age.

5. That the passage of gravel, even when microscopic in size, but particularly if large enough to cause nephritic colic, is a prolific cause of the disease.

6. That the occurrence of tube-casts in the urine, without, or in advance of, the presence of albumen is very common; and, *vice versa*, persons may die of Bright's disease, and the most careful examination fail to show any tube-casts, although there may be albumen constantly present in the urine.

7. That the abuse of alcohol is certainly a cause of kidney disease, as proved by the case I have related, in which it has, again and again, caused hemorrhage from the kidney, with the temporary presence of albumen and tube-casts in the urine, disappearing again with the cessation of its consumption.

SPONGE GRAFTING.—Dr. W. L. Estes, of South Bethlehem, Pennsylvania, contributes to the Medical News an interesting article on the above subject, from which we extract the following. Dr. E.'s experiments were made with very small bits of sponge as grafts on ulcers:

I use fine surgical sponges thoroughly cleansed, carefully washed in cold water, and then soaked in dilute hydrochloric acid for forty-eight hours; after this, carefully washed in several relays of cold water, in order to remove the acid entirely; and lastly, put into a well-stoppered jar filled with five-per-cent solution of carbolic acid. They must remain in the five-per-cent solution for at least a week, and are then ready for use. In grafting, the ulcer is carefully disinfected with a two-per-cent solution of carbolic acid, taking care not to rup-

ture any capillary, for I have found that hemorrhage into the bits of sponge seems to prevent their absorption. Hands, instruments, and every thing likely to come near the ulcer, must also be carefully disinfected. As many pieces of sponge as are desired are now snipped off and allowed to fall into a basin of two-per-cent solution of carbolic acid. With a pair of forceps these are successfully removed and carefully laid among the granulations; when they are all applied the ulcer is covered with a piece of "protective," and a full Lister dressing applied. The size of the pieces used is about one tenth of an inch—about the size of an ordinary skin-graft. The dressings are generally removed on the third day, reapplied; and the subsequent dressings made as the case requires. Strict antiseptic precautions should be kept up for a week at least. On the third day I have found all the grafts are firmly adherent. If examined carefully at this time with the unaided eye, it will be noticed that each graft is surrounded by a faint white zone, which by a magnifying glass is resolved into radiating bands of lymph inclosing minute blood-vessels which run into the sponge. If now a piece be removed, it will be found pretty firmly fixed, and its removal will be followed by quite an appreciable hemorrhage. Examined microscopically at this time, the interstices of the graft are seen to be pierced in every direction by a network of capillaries, and a number of large nucleated cells permeate its whole substance. After seven days the bits of sponge are seen as small white points in the granulations, entirely covered by lymph and firmly embedded in the granulations. At this time it is difficult to remove them. If a piece be removed, the circumference will be seen to be very ragged, the piece itself seeming to be diminished in size. Examined microscopically the capillaries and large nucleated cells fill the sponge every where and the proper sponge substance is beginning to disintegrate. From this time they are steadily absorbed. In fourteen days they are usually not to be seen, or only indistinctly under the granulations. While it is the rule for all the grafts to be absorbed, it has several times occurred that after hemorrhage into them, either from placing them too roughly upon the granulating surface or by attempts at the removal of one of them, after skin had formed over them, a circumscribed ulcer would form at the site, which would close immediately after the removal of the bit of unabsorbed sponge. The explanation of this doubtless is that the extravasated blood, coagulating within the meshes of the sponge, prevents vascular and cellular infiltration of the piece, the *sine qua non* of its absorption and desired encouragement to cicatrization. Of course impurities of

any kind would have a much worse effect, hence great care should be observed in preparing and placing the grafts.

So far I have grafted seven cases—not selected for any particularly favorable feature in the ulcers, but all average, indolent ulcers, resulting from severe injuries and arrived at that state of chronicity where nature seems to wait in patient expectation of the surgeon, by art, rejuvenating tissues she has worn old and callous in her attempts at repair. One of Dr. E.'s cases was an ulcer of the thigh, measured 10 by $6\frac{1}{2}$ inches, was grafted July 30th. Ten grafts were applied three quarters of an inch from the margin of the ulcer. They were applied only on the sides, not at the ends or in the center. August 2d, dressing removed for the first time. All the grafts firmly adherent; the lymph-tracts and blood-vessels distinctly seen entering the sponge-bits on every side. The raised hard edges of the ulcer disappeared, and on both sides, the whole extent, a flat faint blue edge sending numerous little capes into the sea of granulation. August 10th, most of the grafts already covered by skin, the others entirely embedded in the granulations. August 12th, ulcer measures $9\frac{1}{2}$ by 3 inches; regrafted with twelve grafts placed as before. Within three weeks the ulcer had contracted one half inch length-wise and $4\frac{1}{4}$ inches laterally. It will be observed that at both graftings the grafts were placed on the sides of the ulcer and the contraction or cicatrization of the ulcer had been principally lateral. August 22d, again grafted, using sixteen pieces, placing some at either end and in the center as well as on the sides. September 1st, only ten pieces of sponge can be located; two distinct islands of skin beginning. A fourth grafting was done September 8th. October 8th, ulcer one half inch by 4 inches, to be treated in out-door department. October 25th, ulcer about entirely cicatrized.

A comparison of the two methods results in the following conclusions, to-wit:

1. Sponge grafts are available when skin can not be obtained. They do not cause pain in preparing them, nor any annoying little wounds as additional tax upon the healing powers of the patient. They do not subject the recipient patient to the danger of inoculation of specific diseases, as skin may do when taken from a cachectic donor.

2. Sponge grafts take more surely; invariably, when proper care is exercised.

3. Sponge grafts stimulate marginal activity much earlier and to a much greater degree than skin.

4. In sponge grafting skin or cicatricial islets are much slower of formation and not as sure as after skin grafting.
5. Healing seems equally if not more rapid with sponge grafts than with skin.
6. Resulting cicatrices are equally good and contractions equally prevented.

THE OLEATES IN SKIN DISEASES.—Dr. John V. Shoemaker, Physician-in-charge to the American Hospital for Skin Diseases, in Philadelphia, has kindly sent a pamphlet with the above title, taken from advance sheets of Transactions of the Pennsylvania State Medical Society, and which we find of such real value that we insert it almost entire.

Oleates must not be considered merely as solutions of oxides in oleic acid, as previously described. While the oleic solutions could not have therapeutically presented results different from those of the oxides employed in solution, the oleates themselves present a much different action by being in a chemically readily-diffusible state.

These salts, while possessing more efficacy at once, are of a stable character, very different from the oleic solutions heretofore used; and by containing less of the expensive oleic acid they are therefore less costly.

Dr. Lawrence Wolff, of Philadelphia, has found the best and most ready method for preparing oleates to be by the double decomposition of sodium oleates with solutions of neutral salts, and, as a general method of their manufacture, proposes the preparation of the former by a saponification of oleic acid with a solution of sodium hydrate. A solution thereof in eight parts of water is then precipitated by the salt required; this precipitate, washed and dried, yields the oleate required.

Oleate of Mercury. Oleate of mercury is prepared by precipitating a solution of sodium oleate with mercuric chloride. Or a mercuric oleo-palmitate may be derived by using the sodium oleo-palmitate instead. The precipitate will readily form on boiling the solution. It may, for use, be mixed with either the paraffinates, or, better still, lard or lard oil. An ointment containing one part oleate to three parts lard will give what I term a twenty-five-per-cent ointment of oleate of mercury; while, if mixed with equal parts of lard oil, it forms a fifty-per-cent ointment.

It is the best local stimulant and alterative application of all the

mercurials. It is a yellowish chemical combination, with a fatty smell, and of an unctuous consistence. It will produce, when used on the unbroken healthy skin, marked stimulation bordering on congestion; while upon any tumors, indurations, glandular enlargements, and thickening of the skin, it has a most valuable resolvent and alterative action. Its advantages over the old mercurial ointments now generally in use are :

1. Its chemical combination, which makes it better absorbed by the skin.

2. Its solubility in fats, contrary to the suspension of other mercurials therein, gives it great penetrating and absorbing action, manifesting itself in prompt remedial effect.

3. It possesses also the advantage of obviating the rancidity which is sure to occur with other mercurial ointments.

4. It is more economical and cleanly. It is more economical—as a small piece suffices for its remedial action. It is cleanly—for by its rapid absorption into the tissues it will not stain the linen.

In the inunction treatment of syphilis, which has unjustly fallen into disuse, this oleate can be advantageously used, especially when there is derangement of the gastro-intestinal canal. It can be applied in a simple, cheap, and clean manner, when the patient retires at night, by gently rubbing in a small portion of the stronger ointment, about the size of a small marble, on the thighs, the limbs, or on the sides of the trunk. It will be rapidly absorbed, will only leave a reddened surface on the skin, and will not dirty up the linen, or cause the vexatious routine method of old mercurial-inunction treatment. It will, however, be necessary to apply cautiously this powerful remedy, as its deep penetration into the skin, and its quick diffusion, will often bring about more rapid constitutional effect than the ordinary mercurial ointments.

I employ it with success in indurations after abscesses; in excess and deficiency of pigment, either as a disease, or from applications, or as an effect of disease; in indolent papules, tubercles; in obstinate ulcers, particularly the syphilitic; and in cases of enlarged testicle. In the indolent and chronic stage of psoriasis, in which the patches are thickened, harsh, dry, and cracked, the application of the oleate causes them to rapidly disappear. It is necessary, however, in case of psoriasis, before applying the oleate, to remove the scales by alkaline baths, oils, water-dressing, or wet packing. In all forms of vegetable parasites the oleate, lightly smeared over the surface, will not only kill the parasite on the surface, but will frequently, by its

great penetrating and diffusive action, pass into the hairs, the follicles, and sebaceous glands, and destroy the fungus that may have been propagated beneath the skin. In phthiriasis, or lousiness of any part of the body, the oleate destroys alike the parasite and the nits, which sometimes escape other mercurial preparations which are suspended in a mechanical way.

Lastly, the oleate of mercury may be employed advantageously in combination with other oleates. Thus, ten or twenty grains of it, mixed with one dram of the ointment of the oleate of lead, is often very effective in chronic acne and eczema, especially in the fissured variety of the latter, which is so common on the plantar and palmar surfaces. In all the syphilitic skin eruptions, and in superficial ulcers, one dram of the oleate of mercury with three drams of the oleate of bismuth, or the same quantity of the ointment of the oleate of lead, acts quickly and decidedly. The oleate of mercury, in the proportion of one or two drams to one ounce of oil of ergot, forms one of the best and most efficacious oily applications that can be used to that common affection, loss of hair, in which the scalp, or the parts on which it occurs, looks harsh and dry, the hairs being dull and lacking their peculiar luster.

Oleate of Zinc. Oleate of zinc is made by decomposing a sodium oleate with a saturated solution of zinc sulphate, boiling out and drying the precipitate, and then reducing it to an impalpable powder, which is rapidly accomplished. One part thereof, melted with three parts of a fatty vehicle which yields the ointment, I have been in the habit of using. I have obtained, however, the very best results with the oleate of zinc alone, and not mixed with a fatty diluent, which is a fine pearl-colored powder, with a soft, soapy feel, very much like powdered French chalk.

When dusted over a denuded surface it will have, by the combination of the oleic acid and zinc, a stimulating as well as an astringent action. It is *par excellence* the remedy for excessive sweating, or in cases of hyperidrosis and osmidrosis. I have been using it for more than a year, dusting it over the surface in patients suffering from an increased flow of sweat about the palmar and plantar surfaces and around the axillæ and genitalia. It has relieved and permanently cured some of the most distressing cases suffering with excessive secretion about the feet, in which the epidermis had macerated and peeled away, leaving a tender and exposed skin, and giving rise to a very disagreeable odor. It is likewise most efficacious as a lady's toilet powder, particularly to those who are afflicted with shining faces in

the summer, called seborrhea oleosa. It is the most valuable and the most reliable remedy in that commonest variety of eczema, known as eczema visiculosum. I have witnessed marvelous results from dusting the oleate over those in whom the extremities, and even the trunk, had been covered with small vesicles, swollen, hot, inflamed, the parts constantly weeping, and the itching so intense that the patient would rub and scratch the surface until it had become perfectly raw; in such cases I have frequently seen the discharge dry up, and the swollen and inflamed skin resume its normal condition, by the threefold action of the oleate in protecting, stimulating, and astringing the parts. If this oleate be dusted on an inflamed surface that is hot and tumid, such as is found in erythema about the groins and axillæ, and in herpes, particularly of the genitals, it will cling to the skin and will not fall or brush off like ordinary dusting powders. These advantages prove beyond a doubt the superiority of the oleate of zinc over the ordinary ointments and powders in the class of skin eruptions I have just named.

Oleate of Lead. Lead oleate is derived by precipitating a sodium oleate with a solution of lead sub-acetate. The washed and dried precipitate, melted with equal parts of lard, gives the ointment I designated as ointment of lead oleate.

The ointment of the oleate of lead is cream-colored and semi-solid, of the consistence of simple cerate. It has, when applied to the denuded skin, both a combined sedative and astringent action, and will arrest morbid discharges, protect the surface, and allay irritation. It is also more readily absorbed than either Goulard's cerate or Hebra's litharge ointment, and it is more easily and cheaply prepared. It is of the greatest benefit, and often very successful in allaying the inflammation and checking the discharge and itching of postular eczema that is so annoying to young infants. In papular eczema, and in that variety of the same affection that is often found in the flexures of the joints, around the axillæ, the inner part of the thighs, and the perineum, this oleate very effectually allays the intense irritation, and very often quickly restores the parts to their natural healthy state. It is a useful remedy in simple lichen, and in those hard, indurated papules in acne about the face and back, and in the second stage of rosacea; and its value is often very much enhanced in these affections to add to two drams of the ointment about one dram of the bismuth oleate. It has very often a beneficial effect in that well-known fissured form of eczema present on the palmar and plantar surfaces. Should, however, the inflammation and cracking be very

severe and deep and require a marked stimulation, the addition of twenty or thirty drops of the oil of cade to two drams of the ointment of this oleate will increase very much the curative action on the parts. In ordinary cases of scabies or itch, four drams of this ointment, mixed with half a dram of milk of sulphur, yields more promptly than when the latter salt is combined with other bases. The ointment of the oleate of lead soothes the irritation set up by the parasite, while by its great penetrating action it carries the sulphur deeper into the skin, and permits the latter ingredient to act more decidedly on the parasite.

Oleate of Copper. Copper oleate is obtained in a similar manner as the lead oleate, by double decomposition with a saturated solution of copper sulphate. The washed precipitate, melted with either four or nine parts of cosmoline, fat, or lard, gives respectively a twenty or ten per cent of oleate of copper ointment.

When applied to the unbroken skin, the oleate of copper ointment rapidly penetrates deeply into the parts, particularly into the follicles, and will produce slight stimulation. On the other hand, if brought in contact with broken skin, which it stimulates, an insoluble albuminate is formed, which coats over the surface and supplies the place of the abraded skin.

The most successful results that I have as yet had with the ointment of the oleate of copper has been in rapidly curing cases of ringworm, both on the scalp and body. The ointment of the oleate of copper should generally be used in cases of ringworm, in the following manner: The parts should be first washed with soap and water, and, in case the hairs be involved, the hair should be cut short, and, after drying, a small piece of the ointment of this oleate, in proportion to the size of the patch, should be lightly rubbed over the surface. The same procedure should be repeated night and morning until all traces of the disease have disappeared. The parts should only be washed about once in ten or twelve days, as the frequent use of water may prevent the oleate from penetrating to the lowest depth of the follicle in order to successfully destroy the fungus. It may also be necessary to pluck out the diseased hairs or depilate in very inveterate cases, although I have cured some without being compelled to get rid of the diseased hairs in this manner. If this method is carefully followed, the oleate just named will, no doubt effect a complete cure in some of the most obstinate cases. I have also used this ointment, spread on old muslin, for indolent ulcerating surfaces, and have found it an excellent cleanser and healer. It acted by condensing the tissues and

constraining the blood-vessels, and thus lessens the determination of blood to the part. It will relieve, and some of my patients have reported cures from its application to hard and horny warts, corns, and bunions.

Oleate of Aluminium. Aluminium oleate is also prepared by decomposing sodium oleate with aluminium sulphate; the washed precipitate, mixed with equal parts of lard, gives the ointment of aluminium oleate I shall speak of. The ointment thus prepared is semi-solid, dark brown in color, and has a most powerful astringent action. It has the most decided action of all the other oleates in checking muco-purulent discharges that occur in one of the varieties of eczema. For this purpose it can be applied with advantage around the arms, groin, or buttock of those who have excessive discharge from the friction of those parts, particularly in infants and children, and so check the profuse secretion, or bring the parts into a suitable state for other remedies. It can also be employed with success as a dressing in foul ulcers, abscesses, sinuses, burns, and scalds, from its power to coagulate albumen, constrict the vessels by its antistyptic action and checking or correcting the secretion of muco-pus.

Oleate of Bismuth. Bismuth oleate can only be obtained by first preparing a crystallized bismuth nitrate, dissolving it in glycerine, and decomposing with this mixture the sodium oleate. It is of ointment consistence, and should be used as thus obtained.

It is a pearly gray and soft bland ointment. It possesses an emollient and slightly astringent action, and is a most valuable remedy in soothing and relieving cutaneous irritation.

In pustular eruptions, particularly in sycosis, the oleate of bismuth, lightly pencilled over the surface with a camel's-hair brush, will greatly relieve the engorgement of the parts; it will also often abort the pustules, and will cause to disappear the pricking and itching feeling that so often annoys and wears out the patient. It is equally efficacious in superficial erysipelas, and in sunburn, by soothing and relieving the high inflammatory action of the parts. The various varieties of eczema, especially that form, the papular, which is usually met with in the flexures, are very amenable to the application of this oleate. It is particularly useful pencilled over rosacea, or what is commonly known as a chronic inflammation of a portion of the face; it often subdues intractable cases of this disease, although I apply the ointment usually after thoroughly depleting the parts with a needle-knife. It soothes the hyperemic skin, relieves the engorgement of the glands, and thus brings comfort and ease to the patient. It will

also, when applied freely over the surface in cracked and sore nipples, not only soothe, but will arrest the dry and excoriated condition of the parts.

Although bismuth, in the form of a mixture, has long been used as an injection in sub-acute gonorrhea and gleet, yet I know of no medicine that will act so well in many cases of these affections as the oleate of bismuth. I have found it very serviceable in sub-acute gonorrhea and gleet to pass a bougie covered with the oleate of bismuth, and allow the instrument to remain in the canal for a few moments. In more obstinate cases, I have had good results in wrapping a wax bougie with a thin layer of cotton, covering the surface with oleate of bismuth, and passing the combination into the urethra.

Oleate of Iron. Precipitate with ferrous sulphate from sodium oleate on boiling is soon converted into ferric oleate, and as such may either be used pure, or if mixed with an equal amount of a fatty base, as my ointment of iron oleate.

When prepared in the above manner it occurs in a reddish brown paste, inodorous, having a styptic taste, and readily soluble in fats which hold in combination about thirty per cent of the oxide of iron, forming a powerful and important therapeutic remedy.

It is free from local irritation when used topically, but when brought in contact with an ulcerating surface it has a very mild astringent action. It can, therefore, be used, as I have tested it, both for a constitutional and local effect. I have already had some excellent constitutional (systemic) results by having a small piece of this ointment rubbed in the axillæ and inguinal regions two or three times a day. The effect of this ointment has been very good on some upon whom I have applied it, who had a deranged state of the digestive organs and inability to bear the ordinary chalybeates, weak pulse and a pale and flabby condition of the skin. I have also been using it with marked effect in some cases of scrofula. I am now testing its therapeutic action, not only in cutaneous affections but also in many other diseases, from which I expect shortly to hear favorable and satisfactory results. It will, no doubt, take the place of other chalybeates, particularly when the latter are not well borne by the digestive organs, and will probably constitute one of the best constitutional tonic and local astringent remedies.

Oleate of Arsenic. Arsenicum oleate must be derived by making arsenious chloride by the cautious saturation of hydrochloric acid with arsenicum metal. The solution thus obtained, precipitate from

sodium oleate the oleate required, which I employ in the quantities of twenty grains to one ounce of fatty base, as my ointment of arsenicum oleate. It is in this form a soft yellowish ointment, having no change on the skin except where abraded, or in wounds, ulcerating and granulating surfaces, in which condition it will excite active inflammation and destroy the tissue of the parts to some depth. In lupus, especially the ulcerating varieties, the constant application of the ointment of arsenicum oleate will destroy cell-infiltration in a mild and comparatively painless manner. It may be applied with almost as good result in the tubercular form of lupus, providing the parts be thoroughly scraped so as to bring the oleate in contact with an abraded surface, which will greatly enhance its action. It can be used very satisfactorily in the ulcerating variety of epithelioma, and will be better borne for a longer period to the parts than any other form of arsenic. I have likewise employed it after puncturing or scraping the surface to destroy warts, condylomata, nevi, corns, horns, and old granulations. In some instances I have incorporated in this oleate, with a very happy effect, opium, belladonna, hyoscyamus, and arnica.

Oleate of Silver. This new oleate, like the others, is prepared by precipitating the sodium oleate with a saturated solution of silver nitrate, washing the precipitate with boiling water and drying it, after which it is reduced like the zinc oleate to a fine powder. One dram of this, dissolved in an ounce of fatty vehicle, forms what I have employed as ointment of silver oleate. Made in this manner it occurs as a pulverulent salt of brownish-yellow color, which, if mixed with lard in the proportion from ten to sixty grains of the oleate of silver to one ounce of lard, forms a dark brown, soft, and pliable ointment.

This oleate in its natural form, sprinkled over old chronic ulcers, bed-sores, and exuberant granulations, will set up a healthier state in the parts. The best effects I have experienced from using the ointment of this oleate, which not only coats over an abraded surface by combining with the albumen, and so protecting it from the air, but it also causes powerful contraction of the blood-vessels and thus condenses the tissues. It is a safe and efficacious remedy in erysipelas, and can be used either around the margin to prevent the inflammation from extending, or can be applied weak, ten to twenty grains to one ounce of lard, over the inflamed surface. It has reduced the active inflammation by being constantly applied in several cases of the superficial variety of lupus. It will be serviceable applied to boils and carbuncles, and may often arrest pustulation in its early stage. An intolerable itching that sometimes occurs around the

meatus auditorius, the anus, and the genitalia may often be quickly relieved by applying this ointment either alone or combined with opium and belladonna. The advantages that the ointment of the oleate of silver possesses over the ordinary silver ointments are, its stability and prompt action, and by being less painful and milder in its curative action, and still penetrating deeper into the affected part.

The *oleates of quinine*, and those of *morphia*, and also *atropia*, are made by precipitating a sodium oleate with the aqueous solution of these salts: and for use should be mixed with the requisite amount of either olive or lard oil.

I have thus, in a brief and practical manner, endeavored to describe for the first time the therapeutic action of chemically true oleates.

They enjoy the widest range of therapeutic application. The superior advantages which they possess over the ordinary ointments I will consider under the following five heads:

1. Their deep penetration. The oleic acid in their combination gives them active solvent powers and facility and ability to penetrate rapidly into animal textures, while rendering any chemical ingredient with which it is combined more active and effective in dermic medication.

2. Their freedom from rancidity. The same acid held in the combination, will always keep the fat, with which the oleate is mixed, pure, sweet, and free from rancidity.

3. Their cleanliness of application. The rapid absorption of the oleates into the tissues will prevent any unpleasant disfigurement of the parts, will not stain the linen, and will give comfort and ease in their application.

4. Their great economy. The oleate should not be rubbed in vigorously like the ordinary mechanical ointments, which require considerable friction; they only require to be lightly smeared or applied over the surface in very small quantities, hence their great economy.

5. Their antiseptic action. The oleic acid in combination has also a most happy and effective action in rendering the oleates antiseptic or deodorant upon all discharges and suppurating surfaces.

In addition to the great advantages just enumerated, the oleates likewise possess the power of having incorporated into them almost any ingredient that can be used in dermic medication. Such preparations in different proportions, according to the amount desired to

be used, as carbolic acid, creasote, sulphur, tar, arrow-root, starch, iodine, iodide of potassium, chloral, camphor, belladonna, opium, hyoscyamus, nux vomica, ergot (particularly the oil thereof), cinchona, etc.

In infantile eczema the following is often used :

R Unguenti plumbi oleatis, $\bar{3}$ ss;
 Pulveris marantæ, $\bar{3}$ j;
 Cerati simplicis, $\bar{3}$ ss;
 Olei olive, q. s.
 Ft. unguentum mollis.

M. S. Apply lightly over the surface, and in case of much pustulation of the surface or a swelling of the glands the addition of one half to one quarter of a dram of the oleate of mercury to the above will be very advantageous.

Further, the active inflammation of the blood-vessels and tissues of the face, as in rosacea, may be checked by :

R Unguenti plumbi oleatis, }
 Bismuthi oleatis, } $\bar{a}\bar{a}$ $\bar{3}$ j.

M. S. Apply a very small piece, about the size of a toilet-pin, night and morning. If the parts should become much thickened and indurated add one or two drops of creasote.

In eczema of the anus, particularly when the trouble is due to external piles, the following will give very great relief from the incessant and intolerable irritation of the parts, and often cure the disease :

R Bismuthi oleatis, $\bar{3}$ ij;
 Extract opii, gr. x;
 Extracti belladonnæ, gr. x;
 Cerati simplicis, $\bar{3}$ ss.

M. S. Apply frequently.

I wish to add, in conclusion, the objections—for an emollient and soothing action—to using the commonly accepted applications to the skin that are now used, often ineffectually and at times injuriously. These objections are, first, to the ordinary ointments, and, secondly, to the petroleum products.

It is well known that the ordinary ointments have no power of penetrating deeply into the derma; that the combinations which they form with other ingredients with which they are incorporated are usually mechanical, and as a result the fat and the drug are usually found after application caked upon the outside, fulfilling very often only the part of a protection to the diseased surface beneath. They also, by the collection upon the surface, soil the linen, run off or trickle down upon other parts, interfering with cleanliness

and often disfiguring the person. Ointments likewise, kept for any length of time, will become rancid, and if applied in such a decomposed state, which I have seen in many instances, will excite continued inflammation. Again, ointments must necessarily be costly, as they are usually prepared and prescribed in large quantities, and as considerable amount is required to cover a given spot or surface, allowing for the waste on the adjoining parts and that which runs off and stains the linen.

I next pass to the consideration of my objections against using the petroleum preparations. These products are as objectionable as bases as the other ingredients usually used for ointments. They even possess feebler power to penetrate the skin, if any at all, than animal fats which have more affinity for the integument. They are also simply melted by the temperature of the parts, and run off largely on the surrounding surface, and will thoroughly saturate all the linen brought in contact with them. Further, the petroleum products retain some stimulating constituent, left after their manufacture, which will prevent them from having an emollient action, and which proves a very great hindrance to their use as external remedies, providing you wish to soothe and allay active inflammation. In addition to this, I will state that the craze for these paraffinate or petroleum products seems gradually on the wane, not only here but also in Europe.

In investigating this subject I have found that their absorptive power for a penetrating action into the skin is so feeble as to almost cause them to be excluded as such. Irritant ointments of veratria and other substances which I had made respectively of cosmoline, vaseline, and of simple cerate, manifested themselves in the former two preparations as almost inert; while the activity of that made with simple cerate very soon became evident. I am pleased to find an eminent authority, Dr. Herrman Hager, make a similar statement: "The use of vaseline (cosmoline) in place of lard or an ointment in such mixtures, which contain a remedial agent intended for absorption by the skin, is much to be discouraged, as vaseline (cosmoline) prevents absorption thereof."

All the objections, both to the ordinary ointments and the petroleum products, are overcome in the active solvent powers of the oleates—their deep penetration, their chemical combination, their freedom from rancidity, their great economy, and their antiseptic properties. A great drawback, however, to the general adoption of the oleates will be the lack of knowledge that the majority of pharmaceutical chemists have, at the present time, of their manufacture.

ON THE RADICAL CURE OF HERNIA BY REMOVAL OF THE SAC AND STITCHING TOGETHER THE PILLARS OF THE RING.—Mitchell Banks, Esq., Surgeon to the Liverpool Royal Infirmary, read at the last meeting of the British Medical Association a paper on this subject which we are sure will give fresh interest to this very important subject. We copy largely from his essay :

What is meant by a radical cure? In the strict sense it means that the patient shall be restored to the original state of integrity in which he was before the hernia appeared. If a man have a hernia which no truss will keep up, which is a perpetual source of misery to him, and which prevents him from earning a living; and if, by an operation you put that man in such a condition that, with a light truss, he can go about his work in comfort, I think the title of "radical" should hardly be grudged to such an operation. While therefore no patient, who after an operation is still obliged to wear a truss, can strictly be said to be radically cured, yet his condition is so little different from that of a sound man, and so enormously better than his previous state when a truss was useless, that to him the operation has been much more than palliative. It has been practically curative, and so in that sense radical.

Professor Anandale, in December, 1880, contributed an admirable article on the radical treatment of rupture to the Edinburgh Medical Journal. He there enumerates four operations that have been performed on the sac: (1) Ligature of the neck of the sac alone; (2) ligature of the neck of the sac, with invagination of the ligatured sac into the abdominal opening; (3) ligature of the neck of the sac, and excision of the sac below the ligature; (4) ligature of the neck of the sac, with excision of the sac and stitching together the margins of the abdominal opening. He says: "Having used all these methods I have no hesitation, from my experience, in giving preference to the fourth plan." This is the plan which I have myself adopted; and I have no hesitation in saying that it is the best plan yet found out, and the one which will in a short time prove by far the most popular. It is applicable to every case of hernia that requires to be interfered with, and every surgeon can do it.

In performing it I use thorough antiseptic treatment, and make a point of having the pubes and parts around the anus most carefully shaved. In an inguinal hernia, the incision should commence at least an inch above the upper margin of the external ring, so that plenty of room may be given thoroughly to clear the pillars for the stitching.

The sac is next freed from the surrounding tissues, and this is often much more troublesome than might be imagined. One is almost always tempted to think that it has been reached long before it really has: so that frequently after a considerable amount of stripping has been done it is found that it is not the sac at all that is being cleared, and the process has to be done over again. It is this mauling of the loose cellular tissue of the scrotum that gives rise to nearly all the trouble that occurs in the way of suppuration. The sac ought to be fairly reached before any stripping of it is done. Another point is that in the case of an old sac the lowest point is intimately adherent to the tunica vaginalis; and if it be roughly pulled upon, the testicle inclosed in the tunica comes bodily out of the scrotum—not a very serious matter it is true, but unpleasant to look at. The sac having been cleared, its contents are pressed up into the abdomen. When it is thin there is no difficulty in making sure that it has been completely emptied; but if there should be the slightest doubt it should be slit up and its interior examined. Adherent omentum if in small quantity I separate carefully, tie in catgut in one piece and cut off; if in large mass I split it up into two or three portions, and ligature with carbolized silk to insure a good knot that will not slip. One can not be too careful about the securing of the omental stump before it is finally pushed into the abdomen, and every drop of bleeding should have ceased both from the omentum and from the neck of the sac before the next proceeding. This consists in pulling the sac well down and tying it as high up as possible. I use two ligatures of strong catgut, as that material is apt to be treacherous. In case any thing should happen to one the other is there. With a curved needle, armed with strong silver wire, I next pull together the pillars of the external ring, leaving only room for the spermatic cord at its lowest part. Two or three stitches suffice. These are cut short off and left *in situ*. A clean carbolized sponge put beneath antiseptic gauze for the first twenty-four hours makes the best dressing.

The only point of novelty for which I take any credit to myself in this operation (and very likely others have done it as well as myself) is the use of strong silver wires to draw together the pillars of the ring, which is left permanently in position. Catgut I distrust where there is any strain upon it; it yields too soon. Silver wire seems to bury itself so harmlessly that I can not see any objection to it; while it must of necessity hold the pillars together for a considerable time, until they are well agglutinated. I tried magnesium wire once with the idea of its oxidizing and disappearing, but it was too brittle; and,

after all, silver wire is just as innocuous. In the case of femoral hernia I content myself with mere removal of the sac, as the introduction of sutures to pull down Poupart's ligament to Gimbernat's would be very troublesome, while there is not the same necessity for suture that there is in inguinal hernia. The femoral rupture is very rarely so large as the inguinal, and consequently the femoral ring is not dilated so enormously as the inguinal canal is, while its walls are more rigid and unyielding.

In estimating the merit of an operation, which is not one of necessity, but of expediency, the first thing to be considered is the danger which it involves. I have now performed it in thirty-two cases, of which the table gives the particulars of thirty. In twenty-one it was done directly for curative purposes, and in eleven it was done as part of the operation for strangulated hernia. The latter cases clearly can not be taken into account in considering the danger of the operation, but they are of value as showing its effect from a curative point of view, and therefore require to be mentioned. I can safely say that nobody has died as a direct result of it. One patient with strangulated inguinal hernia succumbed from collapse; but, as I have just pointed out, in that case the radical cure was a mere addendum, and can not be held responsible for the death. In one of the instances of radical cure for relief, the patient, as was subsequently discovered, was a dissipated man. He was broken-down in health and was the subject of locomotor ataxy. His hernia however gave him so much distress that he was most desirous of having it cured. He recovered from the operation without the slightest bad symptom. The wound was healed, all but a minute portion at the upper end; and he was going to get up on the following day, when he suddenly became ill with delirium, dilatation of one pupil and other symptoms, which finally ended in coma and death. In no way could I directly trace his death to the operation, as his condition might quite well have come on independently of any thing having been done for him. Although permission to examine the body was not obtained, we inspected the abdomen. The only thing amiss with any of the abdominal organs was the fact that the spleen was soft. The removal of the hernial sac had made the peritoneal lining of the abdominal wall absolutely smooth. The pillars of the ring were agglutinated together with lymph in such a way that the inguinal aperture was completely closed, and in the lymph the sutures were deeply buried. Although it was a subject of great vexation that what I feel certain would have proved a permanent cure was thus prevented, nevertheless there was a satisfaction in find-

ing that the operation is evidently capable of producing a thorough occlusion of the ring and of restoring the uniformity of the peritoneal wall.

At the present moment I believe the choice of an operation for the radical cure of hernia lies between Mr. Spanton's method and that which I am now advocating. Quite recently, in the *British Medical Journal*, that gentleman has published a record of thirty-four cases which deeply interested me as affording an excellent basis of comparison between the two plans. In the first place, looking at the ages of the persons operated upon, of the thirty-four twenty-two were children below eleven years of age, and the remaining twelve were young persons between the ages of thirteen and twenty-seven. Turning to my thirty cases, it will be found that twenty-two were between thirty and sixty-four years of age, and six between eighteen and thirty. Only once was the operation done upon a child. Mr. Spanton very candidly says: "The most suitable cases are, I think, those occurring among the young." But many may question whether the young need to be operated upon at all except in very rare cases. Personally, I must confess that I have a strong belief that in children under ten years of age a well-fitting truss, worn constantly to the age of fifteen, will cure the great majority of their ruptures. Nevertheless, there are cases even in children which demand operation; and to these Mr. Spanton's operation seems admirably adapted, inasmuch as the patients are always thin, with their fiber firm and in good condition, and seldom troubled with cough. To keep the hernia up the restraining force required is seldom great, and a moderate amount of irritation will suffice to close the neck of the sac, and so effect a cure.

Passing from the age of the patients to the character of the complaint, it will be observed that Mr. Spanton can do nothing with ventral, umbilical, or femoral hernia; he can only attack the inguinal variety. All inguinal ruptures? By no means. Only those cases where the sac can be first thoroughly emptied and then invaginated, and that is why his patients are young men and little boys. But, turning to the occupations and condition of my patients, it will be seen that they are persons well on to the middle period of life, or over it, at an age when the vigorous fiber of youth has become yielding and flaccid, and when corpulence and weak tissues come on. A hole once dilated in persons of that age never contracts. If all these persons had worn the best of trusses to the end of their lives their ruptures would have come down as readily on the last day as the first. Nature

does not assist them as it does children. Then they are mostly persons engaged in hard work; not children or schoolboys, but heavy men working as plasterers, painters, sailors, firemen, laborers, and so forth. To cure these men at their time of life and with their occupations is a much more formidable proceeding than any thing than Mr. Spanton has attempted. I have said that the cork-screw can only deal with inguinal ruptures; but unfortunately for the worst cases of these even it is ineffectual—I mean the cases where there is adherent, irreducible omentum sticking in the ring and keeping it open, or where there is an undescended testicle just outside the ring. These are the most serious of all cases of hernia because no truss is of service, and descent and strangulation of bowel are always imminent. I maintain that they can be cured alone by the operation that I am advocating, and by no other. You must remove this stumbling-block of omentum or testicle first, before any thing else at all will be of service.

With regard to the introduction of the radical cure as part of the ordinary operation for strangulated hernia, I think it will mark an important epoch in the history of that operation; and that in future the description, in place of commencing with directions to cut down upon and open the sac, will commence with directions to dissect the sac clear, so that it may be removed when its contents are restored to the abdominal cavity.

In instituting a comparison between Mr. Spanton's operation and the one under consideration, I should not for a moment desire to be considered as undervaluing the former. All I wish to show is that compared with what may be called the sac operation its capabilities are limited. Nevertheless I regard it as a most ingenious device; and I firmly believe Mr. Spanton in all that he says with regard to its success in the cases in which he had tried it. I have not performed it myself, because I have been so interested in the other that I have only looked out for those serious cases to which it is specially adapted. But I think that if a parent thought that his son would be the better of having his hernia radically cured while a boy, I would recommend Mr. Spanton's operation for the lad as the safest, and as probably equally effectual. Both operations have their sphere, and both will become popular in due time—for the simple reason that they are easy and can be done by any body. I trust we may both be successful in exciting in the minds of our fellow practitioners a desire to do something for the relief of a vast body of suffering men and women whose lives by reason of rupture are often rendered very miserable and useless, and not infrequently put in deadly peril.

The following are the chief conclusions at which I have arrived :

1. For simple inguinal hernia in boys where the sac and its contents are reducible Mr. Spanton's operation seems highly suitable.
2. The sac operation is applicable to hernia of all conditions, and specially to those reducible ruptures where there is adherent omentum in the sac.
3. As far as my thirty cases go it is shown not to be a dangerous operation, while its results from a curative or remedial point of view are most satisfactory.
4. Radical cure should form a necessary part of all operations for strangulated hernia.

In the discussion which followed, Mr. Spanton congratulated Mr. Banks on the success of his operations, which afforded an encouraging proof of the change of opinion which was now taking place with regard to the cure of hernia. It was quite refreshing to find a subject of this kind received with interest and kindness in such a meeting of the profession; the more especially as in all modern text-books on surgery all operations for the cure of hernia were alluded to only to be condemned as unnecessary or unjustifiable. Nevertheless, it was essential to keep quite distinct operations performed for cure of hernia in cases of reducible herniæ and those performed as an adjunct to imperative operations for relief of strangulation. Remembering that nearly one thousand and two hundred deaths occurred annually from strangulated hernia in this country, and that of these nearly three hundred took place after operation for its relief, it would be manifestly unfair to include any such cases among those which were classed as operations for the radical cure of hernia. Of his own operation, Mr. Spanton had notes now of about sixty cases in which it had been performed without any fatality, or indeed any serious condition to cause real anxiety. Such a satisfactory result had not been obtained from any other similar operation in this country. Mr. John Wood met with a fatal case in his twentieth operation; and in Mr. Banks's very interesting series of twenty-one cases (omitting those after operation for strangulation) the first death occurred in the fifteenth case. Mr. Spanton regarded the operation, as compared with others of expediency,

such as that for varicocele, osteotomy, and so on—after which numerous deaths were known to have taken place—as not only a safe and justifiable one, but one which would before long be considered obligatory on the part of the surgeon in the case of all young persons with reducible hernia. With regard to the mode of operation it would probably be found, as Mr. Banks had stated, that the best method would be that of ligature in some form or other for adults, and for cases of irreducible and strangulated herniæ; and his own screw method in those cases, especially congenital, occurring in the young. Among such patients the best results had hitherto been obtained, and no advantage had so far been found in the adoption of Listerian measures. Those instances did best in which adhesive inflammatory action occurred; suppuration had always an injurious influence upon the result. The operation with the screw was one which might safely be performed even on very young patients, and with the best possible results. He had performed a similar ligature operation to that so well described by Mr. Banks, in numerous instances of strangulated hernia, both inguinal and femoral; and his colleague, Mr. Folker, made it a rule to do it in all suitable cases of strangulated hernia in which an operation was required; and this year, out of six kelotomies, Mr. Spanton had ligatured the sac and abdominal rings in one hospital and three private patients, to effect a permanent cure with the best possible results. This operation was one which it would seem right to perform in every instance in which the condition of the patient at the time was sufficiently favorable to warrant it.

SYPHILIS TREATED BY HYPODERMIC MERCURY.—Dr. John V. Shoemaker describes, in the Transactions of American Medical Association, his mode of treating syphilis by hypodermic mercury, as follows:

I use for the injections a good glass syringe, provided with especially long needles, of the length of one half inch or so. I learned from the experience of others that the cause of abscess following hypodermic injections of corrosive sublimate was due either to the

use of a very short needle that would not penetrate sufficiently, or to the operator, who may have failed to push it far enough into the integument; and should the latter be the case, the fluid will be deposited in the stratum of the cuticle in which the absorbent vessels are wanting, and inflammation will undoubtedly supervene, causing abscesses. If, on the other hand, the operator has a long needle, and takes the precaution to drive it down to the cellular tissue, which is abundantly supplied with absorbent vessels, no injurious effect will follow. I have patients in private practice to own their own needle to prevent any possible contagion.

Dr. S. prefers gold needles, claiming that they are always in order, and in the long run the cheapest. The rust of the steel needles being hastened by the wire that is passed through them, I have remedied this by using bristles, and oil them previously to passing them.

For injection I use the following formula :

Corrosive sublimate,	I part.
Distilled water,	100 parts.

I usually begin in weak patients with one-tenth-grain (10 minims) doses, and continue the same every day until the disease shows signs of abating or the patient experiences the constitutional effects of the drug. In stronger subjects I begin with the same dose, and gradually increase it minim by minim every second or third day until the same results have been obtained. After the patient has received a full mercurial impression in the manner above given, in case any of the syphiloderm should still be present, the doses are gradually diminished, just giving a sufficient quantity to keep the system under a gentle influence of the drug until all traces of the disease have disappeared.

In some cases (those of an especially obstinate character) I was compelled to push the drug until I obtained the constitutional effects, which were marked by headache, vertigo, hyperemia of the mouth, gums, and cheeks, increased flow of saliva, difficulty of mastication, disturbances of digestion, and diarrhea, before the syphiloderm would disappear.

In others, who were peculiarly susceptible of mercury, all the constitutional effects followed after several injections of one eighth grain, although I tried the peptones, chloride of ammonia, water and glycerine, together and separate, at various times, without avoiding the stomatitis, that Martineau reports did not occur in his hands with the above combinations. I was always compelled in these cases to begin with one or two minims of the solution, and gradually increase

the dose, minim by minim, until I reached the point where the patient showed slight evidences of intoxication from the drug; and then again decreased it. (See my paper in the Medical Bulletin, February, 1882, page 40.)

The infra-scapular and sacral regions are the least sensitive parts, and are also well supplied with a large quantity of subcutaneous cellular tissue, in which to inject the solution, and in my opinion are decidedly the best, as the pain of the injection is not so often or persistent as in other parts.

I drive the needle down deep into the cellular tissue, while I force out the contents; then slowly remove it and press and distribute the solution in the surrounding cellular tissue.

The skin surrounding the puncture becomes a little red and swollen in a short time, but these disappear at the most in a few days, though in some of the cases they remain for quite a time, forming hard spots, which eventually disappear, leaving no bad results. In giving two thousand one hundred and thirty-two injections I have had no inflammation or abscesses.

Many of the patients had had mercury previously by the mouth without decided results of any kind; others were totally unfit to receive the drug internally, being debilitated and broken down, or having weak digestive organs and an irritable state of the intestinal canal. The injections enable me to give tonic remedies by the mouth, together with a good, substantial, nourishing diet.

It is my belief that where hypodermic sublimate has failed, it has been entirely due to the carelessness of the operator.

My conclusions for use of hypodermic sublimate are:

1. The *accuracy* and *preciseness* of the dose.
2. By its use we *preserve* the healthful action of stomach and bowels.
3. That it may be used in almost all cases—in fact in all—without baneful results.

ACID PHOSPHATE IN INEBRIETY—In the Quarterly Journal of Inebriety Dr. Crothers, writing editorially, thus speaks of the acid phosphate:

The use of phosphoric acid in inebriety is very general, and the results are in most cases eminently satisfactory. It seems to act as a nerve tonic and sedative of peculiar power after the withdrawal of alcohol and during the first stage of convalescence. For many years I have used the ordinary preparation of dilute phosphoric

acid with some bitter tonic, generally an infusion of gentian or calumbo, getting excellent results within a limited period. But occasional uncertainty and limited duration of its action has been a source of annoyance that could not be explained. For instance, in one case after a few days' use an intense irritation of the stomach and indigestion would follow, the system apparently only tolerating small doses at intervals of days. In other cases this remedy was followed by rapid restoration and signal good results up to a certain unknown point, then revulsion would take place. After an interval of rest the same marked results would appear for an equally uncertain time. No change of formula ordered had any influence over the uncertain action in some cases. Within a year I have used the acid phosphate by Horsford, of Providence, a preparation composed of phosphoric acid, with the phosphates of lime, magnesia, and potash. In the experience so far, in the same cases in which the ordinary form of phosphoric acid was used, none of the unpleasant effects mentioned above have been noticed. The sedative effects seemed quite prominent, in many cases lessening nerve irritation and the general insomnia, which is so common in these cases. Two facts are clear from my experience, viz., that it is more positively a brain and nerve tonic for the disorders of inebriety, and that the system will tolerate its use longer with more permanent good results. In many cases of insomnia its action has been prompt and very marked, producing sleep equal to chloral or the bromides. This remedy should receive careful study by all who are treating inebriety; at present it gives promise of being almost a specific. Hence it should be tested clinically and its real value determined.

DR. BURKNER reports two cases where diphtheritis was propagated to the middle ear. The paracentesis was made with difficulty, on account of the excessive thickness of the tympanum. Pus and membranes were removed and hearing restored after some weeks' treatment. (Translated from the *Berlin Klin. Woch.* for the AMERICAN PRACTITIONER by Dr. Guido Bell.)

DR. FILEHNE has made some experiments with a new fever remedy, "Kairin" (Oxychinolin-methylhydrür, Fischer and Königs). It is made from peruvian bark, but by another chemical process than quinia. The muriate of kairin is crystalline, grayish, soluble in water and of a bad taste.

The maximum dose is one gram every two hours ; its effect lasts three hours. A dose of 0.5 depresses the fever for two and a half hours ; this dose repeated every two hours for three or four times brings the fever down to normal without any disturbance, but not lower than 37° or 36.5° c.

As long as the temperature is going down the patient sweats ; when it has reached a stand-still the sweat ceases. The patient can be kept in that stage of euphoria for any time, or during the whole sickness. Healthy persons don't sweat after taking even a large or repeated small doses. The sweat is the result of depressing the heat, not a direct effect. The urine is dark green, free from albumen and sugar. Dr. Filehne treated patients with pneumonia, none with malarial fever. He would recommend for that sickness one gram every hour for three hours before the expected attack, until six doses have been taken. (*Ibid.*)

PROF. BINZ reports forty-three new experiments with ozone as a soporific agent. Three persons in nineteen sessions reacted well ; six persons in twenty-one sessions showed only depression ; three persons did not react. They were students of medicine. They were comfortably sitting in a chair. Prof. Binz lays much stress on that. He believes that precedent excitement and an irritability of the throat cause a negative result. Ozone irritates the throat very differently. Prof. Binz speaks then on bromate of potass. and sod. as sedatives. He says even carbonic acid decomposes partly these chemicals and frees some of the bromine which influences the cell in the brain in the same way as the cell of the yeast, by diminishing or abolishing its work. Ozone in its physiological action stands near these halogenes—bromine, iodine, and chlorine. Prof. Binz says these facts do not add much to the understanding of artificial sleep, but show at least the direction to it. (*Ibid.*)

DR. LENHARTZ reports a case of pemphigus acutus gangrenosus and establishes it as an idiopathic disease. (*Ibid.*)

PROFS. BALMER and FRAENTZEL have examined the sputa of one hundred and thirty consumptives for bacilli, in regard to their development, their relation to fever and the course of the sickness. They made the following statement:

1. The prognosis can be made from the quantity of bacilli.
2. Their quantity increases toward the end correspondingly with increased destruction.
3. They are not always equally distributed, but sometimes in groups.
4. They are not always well developed, but sometimes poor, with only a few spores.
5. Such bacilli are found where the process came to a standstill, or in closed caverns.
6. In cases of fever or night-sweats spores are frequently developed.
7. All cases where many bacilli have been found were feverish.
8. More bacilli were found in the sputa than in the tissue of the lungs.
9. The increased development is not due to the oxygen. The same quantity was detected in the tuberculous pus in the closed knee-joint. (*Ibid.*)

DR. DEMME read a paper on the influence of the feed on milch-cows. The milk of cows exclusively fed on hay, and some fed on grass, and others fed on feed from the distillery, was experimented with on three series of twenty-five babies each. The second series did not show much disadvantage, but the third one had five children sick with fatal stomatitis. There was nothing specific in the diseases. (*Ibid.*)

PROF. CZERNY, claiming the priority of the extirpation of the uterus through the vagina, gives statistics of eighty-one cases with fifty-five recoveries, and refers to Billroth's remark: "A surgeon operating the first time after this method will be astonished at the simplicity and perfectness of the execution." (*Ibid.*)

DR. STRASSMAN reports two cases of spasm of the glottis. An anemic girl of sixteen years had a constant sound with inspiration like that of a toad, and palpitation of the heart, and was cured by metallo-therapy. Dr. S. is not inclined to call it hysteria. A boy of eight and a half years had with expiration a sound like that of a dying animal, changing afterward to that of a sheep, with some tickling in the throat and pains in the abdomen. It was a constant crying about every five minutes. During the night there was perfect rest. The galvanic current cured him completely, after the second session. Dr. Strassman refers to some other cases, and calls the disease neurosis of the vagus nerve. (*Ibid.*)

PROF. UFFELMAN has examined the milk of a young mother whose child could not digest her milk. It coagulated thickly, like cow's milk, and did not contain more lime than normal. All results were in the negative. (*Ibid.*)

DR. BIEDERT reports a case of senile hypertrophy of the prostate gland cured by electrolysis. He introduced a needle-electrode protected nearly to the point, and armed it as a cathode. (*Ibid.*)

Notes and Queries.

L'ENVOI.

Again the clumsy hand of Time and Toil and Care, it may be, takes up the pen to write Good-bye to Yesterday and bid Good-day to To-morrow. For sure as come the Postman and the Sun and Christmas and Thanksgiving and New Year, the melancholy joy of leave-taking and hand-shaking brings with its annual round of small by-gones and great expectations the one inevitable duty, the burial of the dead, the laying away forever of the loved and lost; not always of the earth or into it, but dead thoughts, dead hopes, even dying griefs, which while they lasted humanized us and kept us somehow closer in the tangled web of life, and in liver, tenderer, deeper sympathy with the stricken ones about us. Thus it is that "the future with the past is set at variance, and life begins to falter with the burden that it bears." Thus, too, to us all, soon or late, come the words of the song:

"The night hath a thousand eyes,
The day but one;
But the light of the whole world dies
At set of sun.

"And the mind hath a thousand eyes,
The heart but one;
Yet the light of a whole life dies
When love is done."

Alas! with each recurring year the Pen—knowing full well its time will surely come, and with length of days e'en grow older and older, and perhaps wearier and wearier—must indite the same sad story—

"Some who spoke then . . . are no longer here to speak or listen. Some who were young have topped their little hill and

descended into the valley of shades upon the other side. Others, like shocks of corn fully ripe, have been garnered. And ghosts draw nigh; and dim figures glimmer in the clouds; and the songs echo in the distance; and the rose-bushes have put on their nightgowns, and the roses are asleep."

This present number of the Practitioner begins the thirteenth year of its existence. In looking back over its career of twelve years it is impossible not to fall into a train of reflection which the Editor knows can be better honored in the breach than the observance; for he feels that at least in the conduct of this journal he has no reason to reproach himself. It was his purpose to give his profession, not a party or clique therein, an organ on whose integrity all might rely; and if he has at any time lowered the signals of this high aim he is unconscious of it. He looks back upon the route traversed with a certain pride in his work, and with the happiness of one who has been as guiltless of intentional wrong as of wanton offense; and despite the wear and tear of time, and the wrinkles sorrow has set in the lives of the good company who have jogged on so long together, his own aspirations are as pure and fresh as they were in the beginning; whereby he craves the continued indulgence and good will of his readers.

But enough of moralizing. A sad business at best. What right have we, weatherbeaten old friend, to throw our withered bones across the broad highway which, with hoops and jingles, spreads itself before our youngsters? Better take the words of the polite Greek who, while conducting the funeral of his infant child, apologized "for bringing out such a ridiculously small corpse to so large a crowd." What right have we, counting up our losses, to talk to them of sorrow? They will learn it soon enough, be sure; and so, though the air be a trifle more eager than we are, it behooves us to welcome its salutations and heed its suggestions. For while we will gladly swell the sweet iteration, "Peace on earth, good will to men," which came with the Christ, our own cry must still ring out, Forward! always forward! And just as it was "when this old hat was new," may it be now

if we do but will it so. The back-log glows as brightly. The water is as pure, and there is plenty of it, hot and cold. Sir, we greet you! Madame, your very humble servant! And—Doctor—give the embers a poke or two and joggle that phial of Tonic—

TO ALL OUR READERS.

THE MEDICAL ART IN SUMATRA.—The *datu* or doctor having either failed to cure, or having abandoned the case, an expedient sometimes resorted to is to consult the *begu* or evil spirit itself for advice. For this purpose all the sick person's family connections living in the town, men, women and children, assemble at the house. The room having been cleared for the occasion, is dimly illuminated by means of torches made by rolling up a leaf and pouring melted pitch into it. The spectators take their places in a circle around the room, while the actors in the drama are seated in the middle. On one side are the musicians, two, four, six, or eight young fellows, armed with drums of bamboo and deer-skin, and cymbals and gongs, bought from the Chinese, which are kept with the greatest care, in cases specially made for them, among the most precious heirlooms of the family. Of course no melody can be brought out from such instruments, but the musical effect produced by them consists in a variety of rythms, some of which are quite complicated and characteristic. Opposite the orchestra sit two men, one of whom is the *sibaro* or medium. Among the Battas, who are still heathen, each family or each town has two of these mediums, generally a man and woman. No one devotes himself to the office of medium of his own free will, and it requires the learning of no art; but, when the *sibaro* dies or goes away, the *begu* itself chooses a new one by taking possession of him; and, waiting this, the *obligato* music is kept up in the presence of the whole family till the desired event takes place. The *sibaro* is dressed in his ceremonial robes; from his head hangs a strip of cloth reaching to the floor, under which is a vessel of burning incense, the smoke of which rises to his head. After the music has

sounded for a short time, the body of the *sibaro* begins to tremble. He throws off the cloth and rises, and begins, with outstretched arm and a fixed look at the distance, slowly to turn to the rhythm of the music. At the same time a time-keeping convulsion, beginning in his fingers, extends from limb to limb, finally engaging the whole body, till at last the man dances in spasmodic leaps, which continue until he collapses in exhaustion. The music now ceases and the time has come for the head of the family to question the *begu* which has taken possession of the medium, first asking its name. The *begu*, having given its name, then asks why it has been called; and in response to this overture the whole occasion of the trouble is related, and the spirit's good advice is requested. The most important question is, whether there is any hope of the recovery of the patient, and what must be done to secure that desired result. If the family are not satisfied, as they are not likely to be with the unfavorable answer that is generally given, the music and the dancing are repeated, or the process is applied to the second *sibaro*. It sometimes happens that the two mediums do not agree in their revelations, and then the drumming and the dancing and the questioning are kept up until they are of accord. If the final answer is that there is no hope for the sick man, he is left to his fate, which has most probably been made more certain by his having had to endure the prolonged torture of witnessing these ceremonies; if a more favorable answer is given, all that the spirit requires as a condition of recovery is performed in good faith.

If the ceremonies are interrupted by the death of the patient during their performance, the music ceases and lamentations take its place; the company go away, leaving only the nearest relatives of the deceased at the house; a few shots are fired, either to drive away evil spirits, or to give notice of the death, and preparations are begun for the funeral.

THE DATU OR MEDICINE-MAN OF SUMATRA.—The Battas attribute all serious sickness to the work of evil spirits, *begu*.

A woman was attacked and brought low with fever. Her husband did not hesitate long, for she was a valuable help and had cost half his estate in purchase-fees, but sent immediately for the most famous *datu*, or medicine-man, in the region. A honorarium regulated by the value at which the wife was held was paid the doctor, and an equal sum was promised him in case of recovery. Incantations and external means were tried for a few days with no beneficial results, and then the doctor decided that he must make a *parsili*: this was a figure of the sick person, of about her size, cut out of the soft stem of a banana-tree, and clothed with a few rags. It is dedicated to the particular object it is designed to serve, with a certain set of magic forms, and is laid in the road outside of the town, with the expectation that the wicked spirit will come out of the sick person and go into it. As another means of making sure that this should happen, the sick woman was "stolen," or secretly taken in the night to another house. When all this proved to be of no avail the medicine-man declared that he had an extremely perverse spirit to deal with, and must use the most energetic means to drive it out. He pounded up a double handful of the terribly sharp red and green Spanish peppers, and sprinkled the juice into the mouth, nose, eyes, and ears of the poor sick woman, in order to bring the spirit to terms by means of the fearful pain the operation excited. When this did not help the medicine-man lost confidence, notwithstanding a hen was sacrificed in his honor every day, and would not stay any longer. He did not say so, however, but went off secretly; for he foresaw that he would inevitably suffer great shame and reproach if the patient should die on his hands. Of course—for that is understood there—he would have to go away empty-handed if the case proved fatal.

EDUCATION.—Dr. Pettigrew, Professor of Medicine and Anatomy in the University of St. Andrews, in a lecture introductory to his regular course, thus delivered himself on education. We commend his remarks to our readers:

The burning question of the day is education. We have our board and other schools, high and low ; we have our colleges, technical and otherwise ; we have our universities ; and, within the last few years, even our Professor of Education. Education, from the earliest times, has been a subject of solicitude. Our views regarding it are, and ever have been, fluctuating. The ancients were not agreed upon it, neither are the moderns. The term education, as you are all aware, is from the Latin *educo*, to lead, or draw out, and represents the ancient idea of what intellectual training should be. The ancients believed, and I think rightly, that men varied as to intellectual capacity and endowment, and that it was the province of education to draw out of the man that which naturally inhered in him. The more modern (and I believe the less philosophic) view takes for granted that men vary little to begin with, and that every thing may be put into them by a process of cramming. The ancients aimed at teaching men to think and judge ; the moderns have no soul above passing examinations and getting on in the world. As a physiologist, my sympathies are wholly with the ancients. I feel and believe that men vary infinitely, even from childhood. One has only to watch the progress of the innocent and helpless babe, as he progresses in consciousness and strength, to be convinced of this. The little cherub reveals, amid all his smiles, a certain something which is vaguely designated temper, but which in reality is disposition, or intellectual idiosyncrasy, or endowment. This deepens as he grows older, and it is in this sense that Wordsworth regards the child as "father of the man." The germ of certain things (mental as well as physical) exists in the child from the beginning, and urges him, *volens volens*, to do certain things, and to leave other things undone, or to do them in a very perfunctory or careless manner. The intellectual differences in the child altogether outweigh the physical differences ; and hence it follows—and this is a matter of daily experience—that, of two children similarly placed as regards opportunities for learning, the one becomes ultimately a scholar, and it may be a philosopher, while the other barely attains a position of mediocrity. This shows that, while education can do a great deal for an individual, it can not do every thing. It explains how the immortals, Shakespeare and Burns, and a galaxy of great and distinguished men, towered like pyramids above their fellows with very little education, and, as it were, in spite of it. The vigor of some minds is such that they are superior to education ; and their greatness wells out of them like springs of living water, irrigating and beautifying the barrenness of mankind as a whole.

These are the geniuses of our race. They spurn all mental direction and restraint and soar above the common herd as the huge lammergeyers soar in mid-heaven above the loftiest Alpine peaks. Some there are who deny the existence of genius, and accredit mere plodding with every thing that is lofty in design and execution. Such men are plodders themselves, and incapable of appreciating the situation. It requires genius to appreciate genius, in the same way that it requires diamond to cut diamond. The unanswerable reply to all such is, that the genius cuts out new paths for himself; he even creates the tools with which he works; he, in fact, indirectly supplies the materials and appliances which enable the plodders to proceed. The geniuses, unfortunately, are few in number as compared with the great mass of mankind; and it is for the latter that education is called upon more strictly to provide. That geniuses exist, and that they are, with few exceptions, the great leaders of the people is as certain as that the sun shines above our heads. This holds true from Moses downward. The movements of genius are often very erratic; but the grace and splendor of those movements delight and dazzle mankind. It is intellect which rules, and one of the great problems of the day (as it has been of all time) is how to develop and cultivate that intellect. How can we, in short, make the most of intellectual man? Is he to be educated by mere symbols and taught by rote like a parrot, exercising his tongue to the detriment of his head and heart? or is he to be confronted with nature in her vastness and her grandeur, and to be taught that he forms part of the mighty universe, and that his chief business on earth is to understand himself and the universe of which he is a part; and, more important than all, to realize in the universe and in himself the omnipresent Creator of both?

THE EMPTINESS OF FAME.—When Heine had been long an invalid and had endured much suffering, he exclaimed: "What does it avail me that at banquets my health is pledged in the choicest wines, drunk from golden goblets, if at the same time I, with all that makes life pleasant denied to me, may only wet my lips with an insipid, disagreeable, medicinal drink? What benefit is it to me that enthusiastic youths and maidens crown my marble bust with laurel-wreaths, if meanwhile the shriveled fingers of an aged hired nurse press a blister of Spanish flies to the back of my head? What does it avail me that all the roses

of Sharon tenderly glow and bloom for me? Alas! Sharon is two thousand miles away from the Rue d'Amsterdam, where I, in the dreary solitude of my sick-room, have nothing to smell, unless it be the perfume of warmed-over poultices."

A DESIRABLE CONTRIBUTOR.—The following note accompanies a valuable communication: "My Dear Dr. Yandell: Here I am, just as I am, only done in a great hurry. If you like me, bang my hair, and dress me in furbelows and flounces, and send me forth for comment and criticism. If you don't like me, bury me in your waste-basket for a short time and then cremate me." Such friends are almost as rare as the Dodo.

MEDICAL PRIGS.—Dr. Hughlings Jackson, in a recent address, says very truly that too much specialism in teaching tends to produce prigs rather than practitioners.

A POET SICK.—It is told of the poet Heine that he read medical works relating to his disease, and had acquired quite an extensive knowledge of medical subjects. He was accustomed to remark, ironically, "that his studies would not be of much avail to him, except that, perhaps, when he was translated to the celestial regions, he might deliver lectures on medicine, and explain to his audience how little earthly physicians know of spinal diseases."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

MALARIAL FEVER IN CHILD-BED.

BY THEOPHILUS PARVIN, M.D.

Puerperal Malarial Fever was the title of an able and instructive paper by Dr. Fordyce Barker, published in the American Journal of Obstetrics, April, 1880. To many this paper was a revelation, but to those whose practice for years had been in malarial regions it was the recognition of a familiar fact. My friend Dr. Hibberd, for example, now a veteran in the medical ranks, has told me that he had known the fact that puerperal women sometimes suffered from attacks of malarial fever, almost from the beginning of his medical practice. Dr. T. B. Cox, of Frankford, Ind., has informed me that for many years he has been in the habit of giving puerperal women, if confinement occurred at a season of the year when malarial disease was prevalent, prophylactic doses of quinia.

Shortly after the publication of Dr. Barker's paper, a claim of priority was made for Dr. Manson, as having many years before described the disease in question. I then wrote a short communication for the Virginia Medical Monthly, the journal in which Dr. Manson's claim had been set forth, suggesting that

priority belonged to neither Dr. Barker nor to Dr. Manson, and further showing that Burns, 1828, had written of "remittent fever" among the diseases of lying-in women, that Butter, 1775, had given "An Account of the Puerperal Remittent Fever," at least this was the title of the paper as it appeared in the Sydenham Society's publication, 1849. Other facts were adduced tending to prove, if not proving, that the profession had not waited until the latter half of the nineteenth century to learn that puerperal women might suffer from malarial disease. Whether I succeeded in establishing the point made or not, whether the proofs of that point were conclusive or not, I propose now making good my assertion by other authorities than those then adduced.

My attention has been recently again called to the subject by a Paris thesis, 1882, entitled *Etude clinique sur les accès de fièvre palustre survenant après l'accouchement*, wherein the author, Dr. Billon, attributes the first recognition of the disease to Béhier, 1858, who, in the memorable discussion in the Academy upon puerperal fever, pressed the importance of diagnosing between phlebitis and attacks of malarial fever, holding that the latter were returns of the disease awakened by the depressing influence of pregnancy and of labor upon the economy. But, as will presently be shown, Béhier has no just claim to this honor.

In the very able article by Stoltz upon *Puerperalité*, *Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques*, tome trentième, Paris, 1881, this eminent authority speaks as follows: "That the *encientes* and the *accouchées* are especially predisposed to true intermittent fever has been observed by a great number of authors. Already Doublet has spoken of it in saying that he has frequently observed intermittent fevers in the *accouchées* of Vaugirard. Berndt, in his treatise on fevers, maintains also that the newly delivered are quite predisposed to febrile paroxysms. We have ourselves many times made the same observations at Strasburg, where, however, intermittent fever is endemic. It is especially during the convalescence from puerperal affections that we have often noticed quotidian and tertian intermittent fevers, but we have never seen puerperal fever take this type."

In a previous part of this article Stoltz remarks that Fr. Benj. Osiander published in 1787 an account of intermittent puerperal fever which he had witnessed in 1781, but that he was in error, as is seen upon reading his observations, he has taken the *redoublements de fièvre pour des accès*.

Upon consulting Doublet's little volume, *Nouvelles Recherches sur le Fièvre Puerperale*, Paris, 1791, I find no reference to intermittent fever after labor, though its frequent occurrence in pregnant women is stated. *

Nevertheless, the following passage from Doublet, who, as will be readily seen, belonged to those whom the late Dr. Charles D. Meigs was wont to refer to as "milk-men," because of their puerperal pathology, is introduced as furnishing the nearest approach which I have been able to find in the volume to the confirmation of Stoltz's statement: "Sometimes, as Puzos says. *le lait repandu* takes the character of an intermittent fever. M. Beaussier, whom we have already cited as having inserted in the Journal of Medicine an observation concerning *un lait repandu* with infiltration of the thigh, remarked that this malady terminated by an intermittent fever. We have seen several times developed this character of intermittent fever in women newly delivered, and in nursing-women who had milk edemas. We have employed there with great advantage aperients and purgatives very diluted in a bitter decoction, and we have terminated the treatment by the use of cinchona and rhubarb. I mix thoroughly two drams of cinchona and one dram of rhubarb, which I have divided into packets of six or twelve grains; the patients take twelve of these packets a day. This mixture is so much more to be recommended as it has been adopted by Eng-

* An instance of intermittent fever causing miscarriage is given by Lamotte in his *Traité des Accouchemens*, 1726. In the preface to this best of all works upon clinical obstetrics, a book which the obstetrician of the present day can so often consult with pleasure and advantage, the wise author remarks that the observations, or reports of cases as they would now be called, are of more value than the *reflexions* or conclusions he has conjoined with them; that whereas the latter change, the former are fixed, firm, and for all time. O that this master in reporting cases had more imitators! Our periodical literature would be greatly enriched.

lish and French physicians. M. Leake has used it with success, and M. Planchon has seen its good effects." After repeatedly examining this passage, it still seems to me doubtful whether Doublet referred to malarial fever.

I think, too, that Stoltz has misread Osiander, as an extract from the latter's *Beobachtungen Abhandlung und Nachrichten*, etc., Tubingen, 1787, will show. Osiander, in describing one variety of child-bed fevers as "a cold fever," stating that he gives it this designation to distinguish it from "the hot, or burning fever described by Hulme and others," observes as follows: "This fever differs from the common cold or intermittent fever which sometimes attacks women in child-bed, or with which they often pass from pregnancy to the lying-in, and which according to Torti is always very dangerous, but which can generally be cured by the use of the Peruvian bark, in this respect: that in the time between the attacks a real abatement in the feverish pulse can never be perceived, and that the chill never occurs at a regular or definite time, returning frequently, however."

Whatever may be the conclusion as to whether Stoltz has correctly given Osiander's views, there can be no dispute as to the latter's plain recognition of malarial fever in child-bed.

Let us now go back still further. The first edition of Torti's great work, *Therapeutice Specialis ad Febres Perniciosas*, was published at Venice in 1709, but that which I shall quote is the fifth, and was issued in 1755. Torti states, page 310, that although he has observed a hundred times the bark given to pregnant women, he has never seen any injurious result, nor could he even suspect one. After considering this topic at some length he says: *Quod dixi de pregnantibus, cum proportionem dico de puerperis, abortum passis, et menstruas purgationes actu patientibus, quarum nulli denegari potest usus corticis, dummodo aliunde indicetur, etc.*

The index refers to three "puerperæ happily cured by bark of a subcontinuous acute fever." In mentioning the state of one of these patients, in whom the fever had caused premature labor,

Torti says: The pulse was very rapid, exceedingly small and without force, the greatest dryness of the tongue and of the fauces, insatiable thirst, almost constant vomiting of porraceous matter, the greatest aversion for food, some wandering of mind, frequent respiration, *infelixque decubitus*.

Certainly in the light of the facts now brought forward it must be admitted that malarial puerperal fever was known long before any American contributions were made to the subject; its distinct recognition belongs to the eighteenth, probably to a still earlier date, rather than to the nineteenth century. Let medicine advance, but let it not ignore the labors of those long since dead: all wisdom and knowledge are not of the present. Cicero has wisely said: *Nescire quod antequam natus esses factum sit, id semper esse puer*.

Having ended this historical review, a few words as to the recognition and treatment of the disease may be added.

That the puerpera living in a malarial region is quite liable to suffer from malarial fever, the quotidian and tertian types being oftenest observed, can not be doubted. Sometimes, too, there occurs in her that which Verneuil has called the superposition of fevers, malaria being complicated with septicemia; fortunately when this confusing condition obtains the latter is generally slight, though it may continue for several days, greatly protracting puerperal convalescence.

The means of diagnosis given by Oslander, and which have been quoted, remain of great value; the information afforded by the thermometer is also of the greatest importance. In the majority of cases there is no great difficulty in deciding whether the patient be suffering from malaria or from septicemia; nevertheless there are others where the physician must delay his opinion or accept a doubtful diagnosis. But in the doubtful cases, and in those where a complication such as referred to occurs, quinia, or rather quinina, as our new Pharmacopeia makes us say, is important, in the one condition as an antiperiodic, in the other as an antipyretic. Sometimes the patient can not take quinina by the mouth, and then let it be given by the

rectum; under these circumstances ten grains of quina with one grain of tartaric acid may be dissolved in half a teacup of warm water, ten drops of laudanum added for a rectal injection, and the dose repeated every three hours until she is well cinchonized, when the interval should be lengthened, but she must be kept under the influence of the medicine for at least forty-eight hours. If the quina be given by the mouth, let the dose be six or eight grains, and the intervals as before.

This plan seems to be better than that advised by Billon in his thesis. He states that the mild cases of malarial fever in child-bed, eighty centigrams to one gram of the antiperiodic is to be given in two doses in the twenty-four hours, one in the morning the other in the evening; in severe cases, one or two grams may be given, while the worst do not need more than three or four grams in twenty-four hours.

Dr. Barker has spoken highly of Warburg's tincture, but, as a rule, I have not found it well borne by the puerpera; something if not tasteless at least less disagreeable in taste, and less likely to offend a sensitive stomach, is preferable.

INDIANAPOLIS, IND.

NECROSIS OF THE TARSAL BONES, FOLLOWED BY AMPUTATION OF THE FOOT.

BY T. B. GREENLEY, M. D.

On the 10th of February, 1882, I was called to see Elmer, a son of Mr. Frank Smith, of Hardin County, this State, aged fifteen years. The history of the case up to this time, as related by his mother, was about as follows: Some time during the summer of 1881 he jumped from the stable-loft and slightly sprained the ankle of the left leg, but complained very little of it. During the fall, in plowing, he complained of his ankle hurting, and would have to sit down and rest it. Some time

in November the pain grew worse and he took to his bed. The joint soon began to swell and become intensely painful, when Dr. J., of West Point, was called to see him. The symptoms at first simulated very much those of rheumatism, and the case was so regarded both by the doctor and parents. During the winter an abscess formed and was allowed to discharge itself, in doing which sinuses were formed and several openings around the joint resulted. When I saw him pus was present between all the tarsal bones; in fact you might say the foot was dislocated and turned inward. The bones were loose and separated or movable upon each other.

I wanted to remove the foot at this time, and got the consent of the patient and his mother, but his father strenuously objected and wanted me to resort to some means by which the foot could be saved. I told him there was no way to save the foot, and its loss offered the only chance by which the boy's life could be saved. Still he objected and asked me if I could do nothing for the boy aside from amputation. I remarked the only thing I could do was to open the sinuses about the joint and let out the matter, but this would not save the foot. To gratify him I did this under anesthesia.

Four days later I was sent for with the understanding that I could take off the foot. With my friend Dr. Applegate to assist me, I amputated the foot about three inches above the ankle-joint. This was as low as we could operate, on account of the inflamed and cicatrized tissue about the joint.

The condition of the boy's health was such as almost to contra-indicate an operation. He was nearly worn out with hectic or irritative fever resulting from the long-continued ulcerative process in the bones of the foot. He was extremely emaciated, not weighing much over half his ordinary weight. His leg was greatly edematous from obstruction to the circulation, being nearly twice the size of its fellow; and to still further add to the difficulties he had come, on account of great suffering, under the morphia habit. His mother had for some time been giving him this drug from six to eight times a day, and it ap-

peared for a while as if he would have convulsions when it was withheld. His cries for it were distressing to hear.

He reacted from the effects of the operation very finely considering his weakened condition. We used as an anesthetic a combination of chloroform and ether, which I have found less depressing in debilitated patients than chloroform alone.

Owing to the weakened state of the circulation, together with the edema of the limb, I made my flaps laterally and only closed the anterior two thirds of the wound by sutures, leaving the posterior third open for drainage. I remained with the patient until thorough reaction was established.

February 16th: Elmer is doing well. Pulse 112, temperature 101.5°. Stump looks well and union of flaps nearly entire as far as they were closed by sutures. Discharge healthy. Patient has some appetite. Diet, milk with a little brandy.

February 18th: Was astonished to find patient free of fever to-day. The stump presents in front, just above the junction of the flaps, an unhealthy appearance, as if there was a tendency to slough. Boggy to the touch, giving the sensasation as if a semi-fluid substance was below the surface. I was now fully assured of what I apprehended at the time of the operation, that I would have to contend with sloughing of the stump, and perhaps have to re-amputate. I dressed the stump with ung. petrol. and oxide of zinc and kept it wrapped in antiseptic cotton wool.

February 20th: To-day the evidence was very clear that a slough at the site of junction of flaps in front, extending an inch above, would soon take place. The patient was still clear of fever and seemed to be doing well except the wound. Continued same dressing. Internally gave him quinine and iron, which he has been taking from the first.

February 23d: Slough complete to-day, leaving a space about the size of a half dollar, with the bone exposed nearly an inch in front. The margin of the opening caused by the slough does not present as healthy a condition as I could wish, the granulations appearing flabby and large. Sprinkled a little

iodoform over the sore and continued same dressing. The other portion of the stump doing well. The patient's general condition favorable. Has no fever, though pulse 90, which has been about its rate since fever left him. Appetite sufficiently good. Continued milk and brandy, quinine and iron.

February 25th: Condition of both patient and sore about same as at last visit. Continued treatment.

February 27th: Very little change since last visit. Think a part of the periosteum at site of slough is destroyed, and may have trouble on that account to get the granulations to take hold. The end of bone is now covered with new flesh, but the granulations are too flabby. Applied solution of sulphate copper. Other treatment continued. Discharge has lost its fetid odor.

March 1st: Wound closing slightly, and granulations look better. Continued treatment.

March 10th: Wound improving; granulations more healthy and now cover the bone. The discharge for several days has been more healthy. Patient gaining strength and some flesh.

March 18th: Still improving; granulations somewhat exuberant. Touched them with pencil sulphate of copper. A small scale of bone protruding through the granular surface. Treatment continued.

April 1st: Still improving; wound nearly closed. Patient's general health much improved. Treatment continued.

April 10th: Wound about closed. Patient can sit up; has good appetite and gaining flesh. Giving general directions for his future management, dismissed him.

I have not seen the boy since my last visit, but hear that he is up on his crutches and doing well in every particular.

Remarks. It may be asked why the case was allowed to progress so far as to endanger the boy's life before surgical aid was afforded him? This question may be partly answered by the resolution of the patient himself not to have any one beside myself to perform the operation. This determination upon his part grew out of the fact that the family were formerly my

neighbors, and he was better acquainted with me than any other physician, and as I was in New York at the time he concluded to wait for my return home. Besides his father was, as before stated, violently opposed to the operation.

I publish this condensed account of the case, not on account of the infrequency of necrosis of the bones of the foot, but more particularly to show under what untoward conditions we may sometimes operate and save the life of the patient.

I have never seen a patient apparently suffer more pain than this boy before the operation was performed. His mother sat by him nearly day and night, and was compelled to keep him under the influence of morphia. We found it necessary to continue the use of this drug more or less for several weeks after amputation, partly on account of the habit and partly to procure rest.

As far as can be ascertained there is no family history to lead us to suspect any blood dyscrasia by which the necrosis was produced, and the inference is drawn that it resulted from an injury produced by jumping from the stable-loft.

The above report was written in June. The boy is now, December 2d, entirely restored to health, in fact more robust than ever before, and has an excellent stump.

OREL, KY.

CARBOLIC-ACID INJECTIONS IN HYDROCELE, RANULA, AND CYSTIC TUMORS.*

BY P. E. SANDIDGE, M.D.

The purpose of the present paper is to give an account of a few cases of hydrocele, ranula, and analogous tumors, which I have treated in the last dozen years by injections of carbolic acid.

In March, 1868, I saw Mr. W. with my late lamented friend

* Read before the Cumberland County Medical Society, May, 1882.

Dr. J. W. Beauchamp, sr. The case was one of double hydrocele. Being led to think of carbolic acid as a probable cure for hydrocele by reason of what I had witnessed of its effects, in the year or two preceding, in promoting the healing of wounds, I suggested its use as an injection in this case instead of the tincture of iodine, or port wine, etc.; but, Dr. B. objecting, I emptied the sacs and threw in the tincture of iodine after the usual manner. The patient did well, and the operation seemed to be a success.

Two years later the vaginal tunic again began to distend, and in April, 1871, I was called to operate a second time. The tunic of the right side was greatly distended with a dark-looking fluid, which I drew off with an ordinary trocar and canula, and injected two or three drams of a solution of Calvert's carbolic acid No. 5, one part of water to three of acid. I manipulated the walls of the sac in such manner as to bring the solution in contact with their every part, and then slowly pressed it out. The contents of the left tunic were clear. Having withdrawn them through the canula, I threw in two drams of tincture of iodine, kneaded the parts, and withdrew the injection as on the right side. Two hours later the patient suffered intense pain and heat, with retraction of the testicle of the right side. The scrotum was much swollen and red, and the penis became erect. Rigors soon followed, and these in turn by fever. The left side underwent no change. A brisk purge or two, rest in bed, low diet, and cold lotions to the inflamed parts straightened matters, and in ten days the case was dismissed. The right testicle remained for a time somewhat retracted, and the scrotum on that side considerably corrugated. There were no marks of trouble on the left side.

Nine months after (January, 1872) the left tunic had refilled. The right was cured. I emptied the sac, injected carbolic-acid solution, and got a speedy cure. The patient, now alive, has never had the slightest return of his complaint.

Mr. H., a farmer, thirty-five years old, who had a hydrocele succeeding upon an attack of abscess of the epididymis, was

cured by a single injection of carbolic acid. The patient died six years after with consumption, without having had a return of his hydrocele.

From April, 1871, I have treated a considerable number of cases of hydrocele by the simple method here mentioned, with uniform success. I have not had to use the injection more than once in a single case. It has also come in my way to relieve a number of subcutaneous cystic tumors by the same means. I have had equal success with carbolic-acid injections in the treatment of ranula. The following report of a case may be interesting :

In November, 1876, I saw, with a medical friend, a girl thirteen years old, otherwise in good health, having the largest ranula I had ever met with. It positively hung under her chin like the pouch of a pelican. It pressed the tongue up against the roof of the mouth, interfering with articulation, deglutition, and respiration. Here, as in the first case of hydrocele I mentioned, I yielded to the wishes of my medical friend, and operated in the usual way, using tincture of iodine as the irritant. The following April the sac was more distended than ever before. I at once withdrew the fluid through a canula introduced at the most dependent portion of the tumor, and injected six ounces of Calvert's solution of carbolic acid No. 7, and took care to bring it in contact with every part of the cyst before it was withdrawn. The parts quickly became red and intensely painful. Rest in bed was enjoined, cold applications with moderate pressure were made to the parts, and a saline purgative given. Nothing further untoward occurred, and the sac has never refilled.

I have treated two cases of ranula since that time by the same method, with like success.

BURKESVILLE, KY.

Reviews.

The Diseases of the Liver, with and without Jaundice, with the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By GEORGE HARLEY, M. D., F. R. S., Fellow of the Royal College of Physicians; Corresponding Member of the Academy of Science in Bavaria, of the Academy of Medicine of Madrid, and of several Continental Medical Societies; formerly President of the Parisian Medical Society; Physician to University College Hospital; and Professor in University College, London. Illustrated by colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co. 1883. Pp. 751.

The motto of this volume is, "True science is the key to true practice," which is good; and the dedication is an "In Memoriam," being a posthumous revival, with an addendum, of an inscription made twenty years ago to the then living Dr. William Sharpey, by the author, of a monograph, the progenitor of the present work, which is loyalty to the shades of a departed patron.

No mention is made in the title that this is a second edition of the work, but the first line of the preface advertises that the author, twenty years ago, published a monograph on jaundice; and it is presently stated that this volume, although it embodies "within it the whole substance of my original monograph on Jaundice and Diseases of the Liver, bears no more resemblance to it than a mature adult does to the suckling from which he sprung." This shows how enormously a liver-doctor expands mentally in twenty years, and at the same time indicates the propriety of the curb the author puts himself under to make a *brief* extract from his hepatic knowledge to constitute this volume; for if a brief statement occupies seven hundred and fifty-one pages, what a monster treatise a full statement would be!

The first reading-matter in this book is an announcement, on

the fly-leaf facing the title-page, that through a special arrangement between the author and the American publisher the work is issued simultaneously in England and the United States, which is a neat and effective way of impressing the average medical man with the importance and value of the work; and after an examination of the contents of the book, comprehending what the author says, and mentally triangulating the vast plains of his knowledge that he hints at, the impressible reader is entirely ready to rise and, with the classical Dominie Sampson, exclaim, p-r-o-d-i-g-i-o-u-s!

Dr. Harley undoubtedly possesses a large fund of valuable information touching the disorders of the liver, but he mixes it up with so much irrelevant, incongruous, egotistical, and contradictory matter that the heterologous mass is too gross for profitable assorting; in fact he mounts the theme as a hobby and rides it with a loose rein and a reckless disregard for the paths he ought to pursue; now dashing off into fields of speculative hepatology, and again loitering over plains that have not a spear of hepatology of any kind on them. When it comports with his mood he demands the most rigid adherence to scientific facts and logical deductions; where scientific exactness does not lead to his goal he becomes the most credulous of garrulous polemics.

With him chemistry, physiological and pathological, is the keystone to the arch of scientific medicine, and he condemns the colleges because their curriculums do not embrace it sufficiently; he rails at teachers because they do not more thoroughly instruct in it; he insists that after the student is perfect in all other branches he should devote three years to practical laboratory study of it; and finally he covertly intimates that there is but one man who has completely mastered the subject, and gently leads the earnest inquirer to infer that this phenomenal man is named Harley. Perhaps, in the fresh special current language of the laity, the author might be understandingly characterized as a learned and enthusiastic hepatological crank.

To sustain the frankly-expressed opinion of the character

of the author, and in some measure to illustrate the substance, manner, and style of his book, some liberal extracts from the volume are submitted, even their length to be construed as emblematic of the author's prolixity. The first is under the head of "Dietetics of Hepatic Disease," beginning on page 170:

As champagne plays a not unimportant part in the treatment of all the more exhausting forms of liver-disease, I shall take the present opportunity of ventilating my views on this universally appreciated vinous beverage, for I wish to change, if possible, the present pernicious English habit of drinking sour wine, disguised under the name of *champagne sec*, under the mistaken notion that it is wholesome wine which has become naturally dry with age, while in reality it is no such thing, but *tastes dry* simply because it is *sour*. I say *sour*, for the various degrees of dry, very dry, and extra dry (*sec, tres sec, et brut*) champagnes are simply wines of different degrees of acidity—sourness. If any reader doubts this, let him for himself make the experiment of dipping a piece of blue litmus test-paper into his fine (?) dry wine, and (if not already aware of the fact, which in all probability he is not, or he would not have a single drop of the liquid within his doors), I promise he will open his eyes wide with astonishment at the tint the paper will assume. Vinegar—pure, strong wine vinegar will not bestow upon it a brighter red tint; and why? Simply because the flavor which he ignorantly imagined is due to "dryness" is, on the contrary, due to the presence of acid. And the secret is simply this: "Dryness," as it is absurdly called, is the product of age. It is in fact due to the slow transformation of the sugar in the bottled wine into alcohol—as takes place in the twenty, thirty, and forty-year-old port. But it does not pay the wine merchant to keep his champagne till its saccharine matter has been transformed by fermentation in the bottle into alcohol, and the sweetness of the wine has consequently disappeared; so he adopts the speedier course of getting rid of the sweet flavor of the wine by setting up the quick acetous instead of the slow alcoholic fermentation, which has the effect of destroying all the saccharine matter contained in the bottled wine in a few months. Or he adopts another equally effectual course of adding less than four instead of, as he ought, eight per cent of syrup to the wine at the time of the "dégorgement." In fact there are many ways well known to the trade of "spoiling" champagne to suit the ignorant, depraved taste of the English consumer. I say English, for no nationality has as yet been found foolish enough to swallow sour wine under

the delusion that it is drinking good, sound, dry wine, from finding the word *sec*, *tres sec*, or *brut* on the labels of the bottles.

Of course some of my readers will think this very strong language, but let me tell them that not a syllable of it is too strong; and if any one of them doubts the truth of what I say, and thinks he knows a deal more about the matter than I do, let him take the trouble to make inquiries of a champagne wine-merchant—not an ordinary English wine-merchant, for most probably he will be as ignorant of the whole matter as the reader is himself, but a French wholesale champagne wine-dealer—and he will soon discover that every word I have said is not only perfectly true, but not even exaggerated. The following anecdote will show the ideas of a continental champagne dealer regarding the Englishman's knowledge of good champagne:

All my champagne I import myself, and, as my personal friends know, it is A 1. The gentleman who I in general deal with comes to England occasionally, and on one occasion, when he called upon me and got an order, I observed that in booking it he wrote after the name of the wine the word CONTINENTAL, and not only so, but carefully underlined it. On seeing him do this with an air of the most perfect *sang froid* I exclaimed, in a voice of surprise, "Why have you written the word 'continental' after champagne? Is all your champagne not *continental*?" To this he immediately replied—and that, too, with an air of sweet innocence—"O, no; we never now send any continental wine to England." "What on earth do you send, then?" exclaimed I in breathless astonishment. He smiled and answered, "Spoilt English champagne." Being more bewildered still, I slowly repeated his words, "Spoilt—English—champagne. What do you mean?" "O, Dr. Harley, don't you know that all the dry champagne is specially prepared for the English market? We can't sell a single drop of it on the Continent, for nobody will drink such stuff. It's quite sour." Seeing my consternation, I presume, he quickly added, "We never send it to you. Your champagne is what we drink ourselves. It's true champagne—none of the *tres sec* stuff." "But," said I, "all good champagne is slightly acid on account of the carbonic acid it contains." "Yes, that is perfectly true; but it's not sour, which so-called champagne is. You're a chemist. The first time you have the chance dip a piece of blue litmus paper into the two wines, and you will soon see the difference. While the continental one will yield a faint pink, the English one—that is, the sour, which you call dry wine—will immediately turn the paper crimson, just as sulphuric acid would." Here was a piece of important infor-

mation for me; and now I shall proceed to give a little further information, which may perhaps prove almost equally interesting to the reader.

The very next day I was called by Dr. Macaldin to see an old rich bachelor suffering from a violent bilious attack, accompanied not only by vomiting, but diarrhea also. On finding that it was brought on by his having made a hearty dinner of *a pound of salmon steak* and a bottle of champagne, without partaking of any thing else; and my wine-merchant's information regarding "spoilt English champagne" running in my head, I mildly asked if the champagne partaken of was *sec* champagne. The prompt reply was, "O, yes, the very best *tres sec* that can be bought. It could do me no harm." "I am not so sure of that," said I. "Perhaps the wine is sour." "Sour?" said he. "I never drink common 40s. trash. My champagne stands me 84s. per dozen, and is as dry as an old bone and without a particle of acidity in it." "Are you quite sure of that?" said I. "Yes, perfectly sure. You may take a bottle of it home with you and test it." "If you will allow me," said I, "I'll test it here. I have a piece of test-paper in my pocket, and it will soon tell us whether the wine is sour or not." "Then do so," said he. "But wait a minute. You shall have a clean glass and a fresh bottle." While this arrangement was being put in execution I took out the litmus paper from my purse, walked across to a side-table upon which I saw the cruet-stand, took out the vinegar-bottle, and nearly half filled the wineglass with its contents; then poisoning a piece of blue litmus paper between my finger and thumb, said, "Do you see this? Now watch the result." The end of the paper was plunged into the vinegar, held there for a second or two, then withdrawn. "There, you see, it has turned blue to red; that shows that vinegar is sour." "Of course," replied our confident patient; "but that's sour vinegar, not fine old dry champagne." The butler had brought in a fresh bottle and a couple of clean wine-glasses for Dr. Macaldin and me. Pop went the cork; gurgle-gurgle went the sparkling, effervescing, fragrant wine into the glasses. I took one of them up in my hand, held it straight out in front of me, close to his bedside, and quietly waited until all the froth had disappeared from its surface, in order to make sure that the chief part of the carbonic acid had escaped. Then poisoning, as before, a fresh strip of blue litmus paper between my finger and thumb, I looked significantly at the sanguine, smiling face of the patient, and, with marked deliberation, quietly and slowly dipped the strip of paper deeply into the wine, let it remain there for a few seconds, and then as deliberately

and slowly withdrew it. What was the result? Nothing more nor less than that, when it was placed side by side with its fellow that had had been dipped into the sour vinegar, both were found to be nearly equally crimson in color. The patient's face no longer wore a smile. It was now as proportionately long as it had before been broad. His eyes stared motionlessly; he gazed into vacant space. Not a syllable escaped from the lips of either of us. Then suddenly, as if a bright thought had struck him, he shouted to the servant to bring him his writing-desk. It was soon placed beside him on the bed and immediately opened, when, after rummaging about in it for a little time, forth came a piece of folded paper, and, tossing it to me, he, with a gruff voice, exclaimed, "Read that." I took up the paper. It was a receipted bill. I read it over, and from it learned the to me interesting fact that our patient's *tres sec* champagne was put down at 90s. a dozen, and that 6s. a dozen had been deducted for cash payment; so that the sour trash which he had ignorantly consumed as "dry wine" had, as he said, cost him 84s. per dozen. This proved a memorable night to him; for, as Dr. Macaldin afterward told me, the little chemical experiment I performed upon the beautiful dry (!) wine had kept the poor patient awake the whole night. He could not get a single wink of sleep, for the colors blue and red and the words *sec* and sour, as he said, haunted him like a nightmare. I have only to add that from that day to this I believe this gentleman has followed my example, as many other of my friends have done, and left the drinking of *tres sec* to those happy mortals who enjoy a life in the fool's paradise, where ignorance is bliss, and turn their poor stomach's into pickle-jars while drinking different grades of wine vinegar under the sweetly seductive titles of *sec*, *tres sec*, and *brut* champagnes, specially manufactured for their depraved tastes. . . .

In the eye of the champagne-trader the word *brut* simply means a wine that has been left to itself to undergo fermentation; but this, which might appropriately be called natural champagne, is poor and sour; so that even the so-called natural *brut* champagne has to undergo a process of "doctoring" at the period of *dégorgement* to suit it for the English palate. Hence even it also is artificial. In fact all refinements of human taste are simply artificial acquirements which have become popular and at length got gradually stereotyped by fashion. In proof of this I shall now show how the most disgusting drinks and foods are made by fashion not only palatable but exquisitely delicious! The Fijii Islanders, for example, drink with *goût* and intense delight what appears to us in the light of a disgusting concoc-

tion, called "cava" or "kava," which Admiral Sir Henry Denham tells me, from his own personal observation, is prepared as follows: The women sit down in a circle and chew the root of the *Piper methysticum*, spitting the juice, mixed of course with their own buccal secretions, into a bowl placed in the center of the group. Water is then added in proper proportion and the mixture allowed to stand and ferment for two hours, at the end of which time it is ready for drinking.

To us this appears a loathsome beverage, but to the Fijians it is a "dainty dish fit to set before a king;" and is in reality set before their king, for he has a great dishful of it brewed all for himself. (A huge specimen of these kava-bowls may be seen in the museum of the Kew Botanical Gardens. It is much deeper and nearly as long as an adult's coffin.)

So much for funny artificial drinks. Now for even a more strange kind of artificially-manufactured food. In Kane's Tour in North America I came upon the following receipt of the Chinook tribe of Indians for the preparation of a savory dish of olives: A hole is dug in the ground near the entrance of the family mansion, the hut. About a bushel of the finest acorns are then put into it, covered over with a layer of grass, and then the hole filled in with about a foot thick of earth. Now the work of cooking begins. From this time henceforth, for the next four or five months at least, every man, woman, and child in the family urinate into the hole, and in due time the acorns become saturated and softened, pungent and odoriferous, and are then partaken of as one of the finest of all earthly delicacies. Such at least is the opinion of the refined-tasted Chinook Indians. Can we then feel the least surprised that the educated, highly civilized—though in wine-knowledge ignorant—Englishman should equally prize and relish sour champagne? He is only to be pitied, not to be blamed any more than the Fijii Islander or Chinook Indian. On the wise philosophic principle, be it said, that what is one man's meat is another man's poison, we find the British matron priding herself on the nice flavor of her high (*putrid!*) game, the Spanish lady on that of her *rancid* salad-oil, and the German *hausfrau* glorying in the *geschmack* of her stinking cheese (*handkäse*).

In conclusion, then, my advice is, when ordering champagne for an invalid, to tell him to get wine that is neither labeled *sec*, *tres sec*, nor *brut*, but wine such as is drunk in France, which is not "sweet champagne," such as is sent to Russia, but really good, wholesome, palatable wine.

Perhaps an apology should be made for this long quotation, which after all is only a part of the author's side treatise on wine; but it is so characteristic of one phase of the author's eccentricity as to be paradigmatic, and the reader is petitioned to excuse its extent upon the score of its intrinsic value, and for the further reason that it discloses the state of the author's mind on the points of condensation and brevity, for he assumes that his book is conscientiously shorn of all useless thoughts and unnecessary verbiage in these words (preface, p. xviii):

Moreover, as I still think time is quite of as much importance to the professional as to the mercantile man, I have endeavored to condense my materials to the utmost without running the risk of endangering their perspicuity. . . . I shall not waste time by entering into detailed accounts of the literature, nor give tedious and probably at the same time profitless discussions, . . . but limit myself entirely to a brief exposition of my own views.

Let us remember, however, in this connection, as a plea in extenuation, that champagne, whether *tres sec* or continental, sometimes has the effect on doctors to both confuse their ideas and induce a diarrhea of words.

A second great quotation will serve to disclose the scientific attainments of our author in diagnosis, and at the same time evidence the manner in which he meets his *confrères* and demonstrates their inferiority—viz. thus on page 478:

On October 2, 1877, a celebrated Q. C. consulted me about the nature of what he called an "inveterate indigestion." He told me he had consulted four physicians, among whom he named Drs. Andrew Clarke and Murchison, and that they all agreed that it was a simple case of "functional derangement." I listened most carefully to all he said, examined his abdomen to the best of my abilities, but found nothing—not even so much as an iota of a suspicious physical sign; yet I could not reconcile the "inveterate indigestion" with the idea of "mere functional derangement," perhaps for the simple reason that "functional derangement" as a disease occupies no place in my medical nosology. At any rate I acted according to my invariable principle, which is, when in doubt analyze the urine. The urine was

brought. I analyzed it and found therein a trace of melanin! The diagnosis was made—"malignant disease of the stomach." It is said that one swallow does not make a summer, but such a line of reasoning does not hold good in disease. To my way of thinking the undeniable existence of one single cancer cell, be it where it may, or the tiniest trace of melanin, is proof positive of the existence of malignant disease, which a million of negatives can not gainsay. This has been proved to me many times, but seldom or never more conclusively than in this case, unless it be in one other, equally striking if not more extraordinary, where a few cancer cells in the urine gave a correct clue to the nature of a most obscure case of cancer in a dignitary connected with Westminster Abbey, whom I frequently saw in consultation along with Mr. Holthouse, and who was also seen by Drs. Bence Jones and George Johnson, as well as by Mr. Prescott Hewitt.

The Q. C., whose case I am now referring to, expected shortly to be raised to the Bench, and he asked me to be plain-spoken to him and hide nothing. Accordingly I was so, and honestly told him that with care he might live a year or two, but without care he would not live six months. He thanked me, and by my advice went back to Dr. Murchison (who happened to be the physician who was then prescribing for him) with a note from me telling him of my having found melanin in the urine, and explaining to him how to test for it. Back came the Q. C. in a week, somewhat sarcastically saying, "How you doctors differ! not only in matters of opinion, for that would be nothing, but in actual matters of fact. Murchison has three times examined my urine, and he could n't find a vestige of melanin in it, though you said that you found it at once. He says that with all your chemical knowledge you have mistaken altered urine pigment for melanin, and that instead of my having a deadly disease about me he will cure me in three weeks."

Too well, alas! I knew not only the value to be attached to the promised cure, but that the cause of Dr. Murchison's not finding melanin arose from his confounding the reaction of so small a quantity with that of urohematin; therefore I expressed to the patient no opinion regarding Dr. Murchison's remarks, but simply said, "As he says that he can cure you in three weeks, and I feel sure that I can not cure you at all, go back to him and let him treat you up till New Year's day—that is, six weeks from now—exactly double the time which he says will suffice for your cure, and, if you are not cured by that time, come back and put yourself unconditionally under me. In

any case come and see me on New Year's day, and I sincerely hope to be able to congratulate you on Murchison's success." He said he would follow my advice, and so we parted; but I never saw him again till February 15, 1878, three days before his death, when he sent for me, as he said, in order to receive my forgiveness for having broken his promise to me. Our interview was to me a most painful one, his whole conversation being a narrative of blighted hopes and vain regrets at having put faith in the promised cure, at the same time telling me how he had been kept buoyed up with hope until exactly three weeks before that day, when Murchison informed him that he had a cancerous tumor of the pylorus. I put my hand to the spot indicated, and there, sure enough, was a tumor as large as a cricket-ball.

This, then, is another case illustrative of the vast importance of introducing science into the domain of practical medicine. Be it noted, too, that the patient lived only four and a half months from the time that I said with care he might live a year or two, and without care not six months.

This extract establishes the fact that pathological chemistry in its highest development enables its apostle not exactly to cure cancer, but to publicly put a slur upon a rival practitioner and to publish a correct prophecy as to how long a patient will live—after he is already dead.

A third grand quotation will exhibit the extraordinary skill with which the author conducts certain manipulations and how handsomely he tripped up the distinguished Sir Henry Thompson by his superior *tactus eruditus*. Indeed the author has been singularly successful in his consulting associations with the more prominent medical men of his day. This volume narrates a number of such meetings where he held opinions not in accord with his associates; and it is remarkable, and much to the exaltation of his acumen, that in every instance the result approved him to be in the right. But to the quotation, page 433:

On a Sunday forenoon in the month of November, 1864, one of my out-patients at University College Hospital brought his son, aged thirteen months, to my house, suffering from intense bladder irritation. The father and grandfather having both suffered from stone,

and the visible signs manifested by the child (he could not yet talk, so no information could be obtained from him), coupled with that fact, clearly pointing to the existence of a vesical calculus, and as I make it a rule never to follow the reprehensible practice of prescribing for a stone without first having ascertained its true nature when such a thing is possible, I determined to examine the child's urine before prescribing for him. But as the little fellow was either unwilling or unable to make water, I had no alternative but to draw some off. So taking a small "infantile" silver catheter I passed it into his bladder and drew off as much water as I required; then, before withdrawing the catheter, I made a search for the stone. Almost at once the end of the instrument touched it. Guessing that it was small and could be very easily removed at one sitting by a lithotrite, and the child thereby instantly relieved of its suffering, I sent father and child along with a note to my then colleague, Sir Henry Thompson, with a request that he would kindly operate on the patient. To my surprise the father brought back the child to me with a note from Sir Henry Thompson, saying that he had sounded the child's bladder, and that I was quite mistaken, for there was no stone whatever in it, and consequently the symptoms must be due to something else. Having more confidence in the value of stone symptoms than in my colleague's infallibility, and feeling, too, that it was almost impossible for me to have mistaken something else for the peculiar sensation the contact of the stone communicates to a metallic catheter, I no sooner read the note than I ordered the man to replace the child on the sofa and reintroduced the catheter. Again I detected the stone; and now, wishing to find out its size, I passed the forefinger of my left hand into the child's rectum and guided the stone toward the point of the catheter. (In children, from the parts being small and the tissues thin, a great deal may not only be learned, but done, by manual manipulation.) Finding that I had the stone firmly between my finger and the point of the catheter, and the idea having struck me that I could possibly push the stone into the urethra by guiding it thither with the catheter, a trial was made, and the trial was successful. In less than three minutes I had the satisfaction of having the stone firmly lodged in the urethra, and within ten minutes more I had manipulated it through the exterior walls, always keeping it following the catheter, up the urethra to within half way between the scrotum and point of the penis. Here it stuck, and I was just about prescribing a powerful diuretic, in order to get the stone floated out, when it occurred to me that it might perhaps be as well to let my

colleague not only see that physicians may detect calculi when surgeons fail, but kill two birds by one stone, and get him to cut it out with a knife from where it then was.

So I kept the child quiet on the sofa while the father went back and asked Sir Henry to come round and bring a bistoury with him. In a few minutes he appeared; but he brought no bistoury, probably thinking that none would be required. I placed the little catheter in his hand, and told him that if he passed it gently into the child's urethra he would discover a stone. Before allowing him to do so, however, I secured the stone in its position by compressing the urethra immediately behind it with my finger and thumb, for fear it might accidentally slip back into the bladder, upon being touched with the point of the catheter, before he had time to satisfy himself of its existence.

As soon as he expressed himself satisfied that a stone was actually in the child's urethra, I handed him a bistoury and requested him to cut down on it and let it out. He did so, and the stone is now safe in my calculi collection—to me a not uninteresting souvenir.

These excerpts do not savor to any great extent of hepatic affairs, but nevertheless they fairly limn the author's mental make-up, as well as the variegated solid and frothy substance of his work. There is not wanting, however, abundant hepatological material in the book. Early in its contents Dr. Harley enumerates thirty-four causes of jaundice, and four hundred pages later tabulates thirty-nine pathological conditions that attend it, and specifies eight—and says there are others—abnormal structural alterations of the liver not necessarily associated with jaundice. All these states, he affirms, can be accurately and differentially diagnosed by the qualified practitioner; and he supplies in the last chapter of his book six aphorisms and seventy-eight principal and eighty subsidiary rules, which will unerringly lead him who strictly follows them to this high estate. The nature and worth of these instructions must be estimated by the reader from the character of the author as he gleans it from the specimens of his writing so liberally furnished in this review, which is already too long to allow of further elucidation of the author's peculiarities. Indeed the writer knows of no justification of the

length of this review as it stands except that the book, being ostentatiously heralded as springing into existence in two hemispheres at the same moment, implies that it is a work of abounding merit, and the readers of this journal are entitled to such an exhibit of its salient points as will enable them to judge, in some measure at least, of the justice of its claims from seeing something of its strength and much of its weakness, and by this token determine whether or not they wish to purchase and study the work.

J. F. H.

The Pharmacopeia of the United States. Sixth Decennial Revision. New York: William Wood & Company. 1882.

From the preface it appears that seventy-eight crude drugs, twenty inorganic drugs or chemicals, one hundred and six pharmaceutical preparations, and seventeen miscellaneous substances found in the last Pharmacopeia are dismissed from this; while, on the other hand, there have been added to this thirty crude drugs, one hundred and fifty pharmaceutical preparations, sixty inorganic drugs or chemicals, and sixteen miscellaneous substances. Obviously, so far as number is concerned, the gains are more than the losses.

“To supply a demand which has arisen for dry, powdered extracts, a new class of preparations has been introduced under the title of Abstracts.” Medical journalists, as well as their readers, know very well what is meant by abstracts, and real-estate dealers know what abstracts of titles are, but now come the druggists and pharmaceutists asserting another meaning for abstracts.

Possibly these gentlemen will claim retrospect, and put that in the next Pharmacopeia. Another change is the introduction of the metric system in the working formulæ.

These, however, are minor matters; a much more serious thing is the change in the strength of some of the important

preparations; thus, as pointed out by Dr. H. C. Wood (Philadelphia Medical Times), the tincture of opium and the deodorized tincture have the quantity of morphia in each increased one third.

A sin of omission is that Churchill's tincture of iodine, used by at least one doctor in five, is not given; while this invaluable preparation is omitted, we have menispermum, oil of sesamum, and a dozen like remedies that not one doctor in a hundred ever thinks of using; the santoninate of soda is given, which is probably the most disagreeable form of administering santonin, and at the same time the most useless.

In some respects the sixth decennial revision of the Pharmacopeia disappoints us; so many changes made, some of them quite radical, drugs and preparations admitted that might be well omitted, and some omitted that ought to be admitted, and changes in the strength of several preparations without, as it seems to us, sufficient reason. In fact, we seriously question if revision will meet the approval of the profession. Probably when the next revision is made the profession will take more interest in the matter, and have more to do with the reception or rejection of remedies.

A Practical Treatise on Diseases of the Uterus, Ovaries, and Fallopian Tubes. By A. COURTY, Professor of Clinical Surgery, Montpellier, France. Translated from the third edition by his pupil, AGNES M'LAREN, M.D., M.K.Q.C.P. With a preface by J. MATTHEWS DUNCAN, M.D., LL.D., F.R.S.E., etc. Philadelphia: P. Blakiston, Son & Co. 1883.

The first edition of this work was published in 1866, and, procuring it then, it has been one of the most frequently consulted books in our library. Some time after the appearance of the first edition a New York publisher advertised that he would issue a translation, but so far this publication has not been made.

Certainly no one could translate the work better than this Scotch lady has. We can use no expression too strong in commendation of the admirable translation made by Dr. Agnes M'Laren. We regret that diseases of the vagina and of the external sexual organs have been omitted in the translation; for students and practitioners, generally buying but one book on diseases of women, desire that book to be complete.

The first chapter of the work is occupied with the anatomy, physiology, and teratology of the organs of generation. A good foundation is thus laid for the study of diseases of these organs. The volume is then divided in two parts—the first entitled *A General Survey of Uterine Disease*, and the second *Uterine Diseases in Detail*.

One marked and valuable characteristic of Courty's work is the broad view taken of uterine pathology and therapeutics. The author recognizes more distinctly and fully, probably, than most writers on maladies of females, the important part which diatheses and constitutional states play in their genesis and in their continuance. While, in some respects, possibly too much of a localist in therapeutics, yet, as a rule, he gives great prominence to constitutional treatment.

One thing which will strike the American physician as quite remarkable is, that Courty makes no reference to laceration of the cervix and Emmet's important operation for its cure. Indeed, among Courty's operations for dysmenorrhea he describes one as "autoplasty by the formation of artificial commissures," in which the resulting os, figure 242, page 317, looks very much like a representation of lacerated os, almost a so-called stellate laceration. We doubt very much whether a patient on whom Courty has performed this operation could live in some parts of the United States a year without the apparent lacerations being pared and stitched; for, if there were no ectropion and no leucorrhœa, there would at least be nerve fibers caught in the cicatricial tissue, and making complaint through the top of the head or the bottom of the foot, or in some other remote part of the economy—complaint which can in no way be silenced

but by that marvelously overdone operation known as tracheloraphy.

We regret to find that nearly forty pages devoted to menstruation, in the original work, are omitted in the translation. Indeed the book has undergone still other condensations than by the omissions referred to. Nevertheless it remains one of the best books on diseases of women, and the American profession may be congratulated upon its publication in this country.

Clinic of the Month.

A FEW WORDS ABOUT EATABLES.—The following is an abstract of a supposed dialogue between Dr. C. B. Radcliffe, of London, and a layman at the breakfast-table—the latter having eaten largely of meat, while the doctor confined himself to a little galantine, butter, and brown bread. To save space we omit the talk of the layman :

Lean meat is not the only kind of nitrogenous food which will serve your purpose. It is impossible to distinguish between the albuminose or peptone into which fibrine is resolved in the process of digestion, and the albuminose or peptone into which albumen, or caseine, or gluten, or legumin is resolved in this process. It is apparently of little or no moment whether these various nitrogenous articles of food are derived from the world of animal life or from the world of vegetable life. You must allow that a herbivorous animal is not less vigorous than a carnivorous animal; and certainly you would find it difficult to show that man, who can live and thrive under the most dissimilar circumstances upon almost any kind of food, is vigorous in proportion to the amount of meat he contrives to consume. All the nitrogenous substances, animal and vegetable, are resolvable into albuminose in the process of digestion, but not with the same facility in every case. Some of them are digested more easily by some persons than by others; and besides, there may be differences in the albuminose itself which are recognizable by chemical means. In your own case lean meat may be more digestible than any other nitrogenous compound, and the albuminose into which it is converted may be more easily assimilated. In another case eggs or cheese or maccaroni may better suit the requirements of the person taking it. I do not venture to lay down a hard and fast rule for you or any one in this matter; I only want you to understand distinctly that a person who can not get a full allowance of lean meat, or who does not choose to get it, is not necessarily ill-fed for that reason, even though he have to do hard work with his muscles. The part of the nitrogenous food

which is not wanted for plastic purposes is, after digestion, resolved by the action of the liver into urea, and the other excrementitious products which are met with in the urine, and into a compound containing carbon, hydrogen, and oxygen without any nitrogen, which compound may be the substance called amyloid substance or glycogen. This non-nitrogenous compound is destined to serve as fuel for the production of heat and other forms of force. The portion eliminated as urea, which is simply excrementitious, and the complemental portion, which is destined to serve as fuel, is as 33.20 to 66.80; and therefore it is easy to see that a large part of the nitrogenous food—but little less than two thirds, that is to say—may be devoted to other than plastic purposes, and that a little more than one third may be simply wasted. Moreover, the comparatively small portion of nitrogenous food which is actually wanted for plastic purposes is, there is reason to believe, eventually disposed of in the same way as the portion which is not used for plastic purposes, a little more than one third being wasted as urea, and a little more than two thirds being utilized as fuel. And if this be so, the question arises whether the fuel into which a large part of the nitrogenous form of food is resolved sooner or later is the best form of fuel for your purposes—whether, for example, you were wise in picking out the fat and in taking dry toast?

I think there is good reason to believe that much of the fuel, without which life can not be maintained, may be more easily supplied by non-nitrogenous substances than by nitrogenous substances. The fuel in nitrogenous food is not ready-made. This food has to be transformed, first of all, into albuminose or peptone, and then this albuminose or peptone has to be broken up, partly into the excrementitious portion which passes out of the system by way of the kidneys, and partly into the residual portion which is destined to act as fuel. An abundant supply of gastric and pancreatic and intestinal juices is wanted in order to bring about the proper formation of albuminose; without a healthy condition of liver and kidney it is evident that the albuminose may not be broken up (this breaking-up occurs chiefly in the liver) into urea and amyloid substance or glycogen, and that the urea (which passes out of the system by way of the kidneys) may not be eliminated. Moreover, it seems to be certain that no one can take a large amount of meat and other highly nitrogenous compounds for a long time unless he also do a large amount of muscular work—unless he do much more work of this sort than the great majority of human beings are willing or able to do. Fat and butter and oily matter gen-

erally, on the other hand, require no digestion in the proper sense of the word. They are converted into an emulsion—which is no more than a mechanical mixture like cream—by the action of the pancreatic and duodenal juices chiefly, and by the action of the bile partly, and this emulsion passes directly into the general circulation of the blood through the lacteals directly, without going the round of the portal circulation and the liver, as albuminose has to do. Fat and butter and oily matters generally are fuel ready made, or which only need to be emulsified in order to be in this case; and they have this advantage also—that they are burnt up in the system without leaving behind them, so to speak, any ash-like urea. And, as force-producing agents—if the capacity for oxidization may be taken as a measure—the value of fat and oil is almost double that of fibrine or albumen.

What you have to do, first of all, is to bear in mind that the daily loss which has to be made good by food in a man of medium stature and in moderate work, amounts to 4,800 grains of carbon and 300 grains of nitrogen, and that, in round numbers, lean meat contains eleven per cent of carbon and three per cent of nitrogen, and bread thirty per cent of carbon and one per cent of nitrogen. The daily rate of wasting of the system which I have mentioned is that which is brought to light by very many observations, carried on by many persons in various ways, with a view to regulate the food-rations of soldiers and sailors and prisoners and other ration-fed people; and as to the proportion of carbon and nitrogen to lean meat and in bread the evidence is sufficiently conclusive. You must mix your lean meat and bread in certain proportions if you care to feed without wasting good food. In order to replace the daily loss of 4,800 grains of carbon by lean meat, the quantity of meat you must take is 43,637 grains, or rather over six pounds—a quantity which contains 1,009 grains of nitrogen in excess of the 300 grains actually wanted. In order to replace the daily loss of 300 grains of nitrogen by bread, the quantity of bread you must take will be 30,000 grains, about four pounds—a quantity which exceeds by 25,200 grains the 4,800 grains of carbon which are actually wanted. There is no occasion for you to eat these monstrous quantities of meat or bread. You must eat six pounds of lean meat every day if you take nothing else but lean meat; you must eat four pounds of bread every day if you take nothing else but bread; but you may get on very well upon a comparatively small allowance of meat and bread if the two were combined in proper proportions. You want every day 4,800 grains of carbon and 300 grains of nitrogen; you find what you want, as Dr.

Pavy shows, in two pounds of bread and in about three fourths of a pound of lean meat, thus: 14,000 grains (two pounds) of bread contain 4,200 grains of carbon and 140 grains of nitrogen; 5,500 grains (about three fourths of a pound) of lean meat contain 605 grains of carbon and 165 grains of nitrogen; making a total of 4,805 grains of carbon and 305 grains of nitrogen.

You need not take so much, or any thing like so much bread, if you will take fat with your meat, or butter with your bread, or any oily matter in proper quantity. Fat is very rich in carbon, and so are all fatty and oily matters. You would have the 4,800 grains of carbon and the 300 grains of nitrogen which you want, if you took three fourths of a pound of lean meat and about two and a half ounces of fat. In proportion as you increase the amount of fatty or oily matter you may diminish the amount of bread; and within certain limits, which you may determine for yourself, you may probably please yourself as to the relative proportions of the two. Whether you would get on satisfactorily by excluding bread altogether, and taking fatty matter in its stead, is another question. The growing chick within the egg has plenty of oily matter to feed upon, and nothing of the nature of starch or sugar, or any other carbo-hydrate to take the place of bread. The sucking mammal finds a large amount of oily matter in the milk upon which it feeds, and a somewhat larger amount of lactine, or sugar of milk, which, as a carbo-hydrate, may more or less take the place of bread. In the hen's egg the proportion of fatty matter to albuminous matter is as 82 grains to 110 grains. In cow's milk the proportion of fatty matter to lactine is as 351 grains to 468 grains, and of these two substances in conjunction, together with caseine, as 811 grains to 369 grains. In two pounds of bread and three fourths of a pound of lean meat, the proportion of fatty matter to carbo-hydrates is as .944 ounce to 16.320 ounces, and of both these substances together to nitrogenous matter as 17.264 ounces to 4.908 ounces. By comparing the composition of two pounds of bread and three fourths of a pound of lean meat with that of eggs, you may also, I think, form some idea of the amount of fatty or saccharine matter which is necessary to replace the two pounds of bread. The nitrogenous matter of six pints of milk or thereabouts is equivalent to that of two pounds of bread and three pounds of lean meat, for in six pints of milk there are 4.082 ounces of fatty matter and 6.416 ounces of lactine; and, therefore, you may conclude that the 4.082 ounces of fatty matter and 6.016 ounces of lactine which are present in the six pints of milk are equivalent, for practical purposes, to the .944 ounce

of fatty matter and to the 16.320 ounces of starch and other carbo-hydrates which are met with in the two pounds of bread and three fourths of a pound of lean meat. The nitrogenous matter of twenty eggs is about equal to that of two pounds of bread and three fourths of a pound of lean meat, for in twenty eggs there are 1,600 grains, or 3.66 ounces of fatty matter; and therefore you may conclude that the 1,600 grains, or 3.66 ounces of fatty matter which are present in the contents of twenty eggs may take the place of its .944 ounce of fatty matter which are met with in the two pounds of bread and in the three fourths of a pound of lean meat, and of the 16.320 ounces of starch and the other carbo-hydrates which are present in the two pounds of bread. For it may be fairly assumed that the properties of the nitrogenous and non-nitrogenous compounds are as properly balanced in the egg and milk, which are two great typical forms of natural food, as they are in the artificial combination of bread and meat of which we are speaking. In the case of the egg an uncertain amount of lime, probably a large amount, ought to be added, for the shell becomes thinner and thinner as the process of incubation goes on, in consequence of the solvent action of the phosphoric acid which is generated by the oxidization of the phosphorus in the contents of the egg. In the case of white bread (white bread was used in this experiment) the greater part of the mineral matter, which is lodged chiefly in the husks of the grain, is sifted out in the preparation of the flour from which white bread is made. The earthy matter of the shell is certainly necessary to the proper development of the bones of the chick, and in all probability the bones are not the only tissues which are in this case. A dog lives long and thrives when it is fed upon brown bread, but not when it is fed upon white bread. If the body is to be properly nourished the mineral matters which are contained in the different articles of food can not be excluded, that is evident. And if these different articles of food are to be properly digested, the common salt in the food, or taken along with the food, may have a very important work to do in addition, for without it it is not easy to see how the gastric juice could acquire that part of its acidity which depends upon the presence of hydrochloric acid. You have only to consider how olive oil is used in the warm parts of Europe where the olive is cultivated, and how ghee is used in India, in order to satisfy yourself that oily matter may be taken with facility in hot countries as well as in cold. You hear nothing about indigestion; you find that a bad olive harvest or scant supply of ghee is a great national calamity. A Hindoo servant of a friend who kept up his Indian

habits of eating here in London has often told me that in his own case nothing would make up for a deficiency of ghee or butter, and that his experience in this matter was the common experience of his countrymen at home or away from home. He looked upon a sip of ghee in very much the same light as that in which his fellow-servants looked upon a draught of beer. "Wine is good, but oil is better," said a peasant to the courier who was with me the other day in Andalusia, and after gulping down a large mouthful of olive oil and smacking his lips more than once, the expression of his countenance was an apt illustration of the meaning of the Scriptural text which speaks of oil as making "the face to shine." Indeed, it may be taken for granted that oil may be used in large quantities throughout the year in the hot olive-growing countries of the south of Europe, not only without making the people bilious or out of order in any way, but with unmistakable benefit. Fat and butter and cream are heat-producing agents without doubt, but heat is only one of several modes of force which are closely correlated; and there is reason to believe that the molecular movement which gives rise to heat in one case, may, in another case, give rise to electricity or some other form of physical force. I do not believe that heat is transformed into muscular force or nerve-force. I believe that the oxidization of the force-fuel which gives rise to heat in one case, may, in the case of a muscle and nerve, give rise to the electricity which is peculiar to muscle and nerve; that this electricity antagonizes the state of action in both muscle and nerve; that in muscle it also causes elongation of the fibers during the state of rest; and that muscular contraction is brought about by the action of the attractive force which is inherent in the physical constituents of the muscular molecules when this force is no longer antagonized by their electricity. Indeed, all that I want to bring about muscular contraction is, not a metamorphosis of muscle which issues in the development of muscular force, nor a transformation of heat into muscular force, but simply a supply of electricity during the state of muscular inaction which will counteract the tendency which the muscle always has to contract as an elastic body. I want, indeed, not a special muscular force, but merely the common attractive force which is inherent in the physical constitution of the muscular molecules, and electricity to counteract the working of their attractive force when necessary. I have a notion that the beneficial action of the fats and oils is not wholly to be accounted for by regarding them merely as force-producers. I believe that they actually serve as food for nerve-tissue. This tissue is in the main made up of a peculiar kind

of fat; and I am convinced that nerve is starved if the food be wanting in a sufficient quantity of fatty or oily matter. I find that very many persons suffering from various chronic disorders of the nervous system have abstained from the fatty and oily articles of food, and that their state is almost invariably very much changed for the better when you can get them to take what they have avoided; I also find that a great number of delicate infants who can not take skimmed milk, and who do not take kindly to unskimmed milk, will take milk without any difficulty when it is enriched with cream. I prefer, as food for invalids, milk enriched with cream or some other fatty matter, or the yolks of eggs, or something like the *bouillon* of the French *pot-au-feu*, to highly nitrogenous preparations from which the fat has been carefully skimmed off, as ordinary beef-tea. Lean meat more or less fluidified, and its juices, are not the *sine quâ non* in food if what I have said be true. On the contrary, I am disposed to think that in very many cases foods of this sort are really unsuitable, if only by calling upon the liver to do work which this organ is unequal to at the time. I am quite a believer in the virtue of unskimmed milk as a most suitable food for invalids of all ages in almost all cases; and I think that in very many cases where this fluid does not agree, this difficulty will be got over by the addition of cream or some fatty matter. I can imagine that many mothers who can not feed their infants in the proper way, or get fresh cow's milk or cream, will have reason to be glad when they can procure preparations of condensed or inspissated milk enriched with various quantities of cream or some fatty matter. I can imagine that preparations more or less similar to those, which, for the reason I have just hinted at, might properly be called brain-food or nerve-food, might make cod-liver oil almost superfluous as medicine, and be of infinite service to countless myriads of persons in whom brain-power or nerve-power is lacking. I can imagine that in many cases it will be difficult to find a food for invalids which is to be preferred to lightly boiled yelk of egg, or to ordinary egg-flip. And in the cases where it is expedient to use flesh—meat in one form or another—I am sure it will be a great change for the better when, instead of having recourse to beef-tea, or Brand's Essence, or Liebig's Extractum Carnis, the thoughts are turned to something like the *bouillon* of the French *pot-au-feu*, or rather to the very thing itself. This *bouillon* is much more pleasant to the taste than broth or stock. It is the outcome of ages of experience in the people who have a special genius for cookery. The animal and vegetable ingredients are so blended that the flavor of no one article is predominant. The *bouil-*

lon contains all, or almost all, the soluble portions of those ingredients which are necessary for tissue-forming or plastic purposes, and for force-production, and when taken along with bread, it provides a meal for an invalid which is most palatable, most digestible, and most restorative. It is the basis of all good gravies and soups, becoming, for example, excellent *purée* or pea-soup when a proper portion of pea-flour is added to it. The *bouilli* can not be of any very great value as food; and I am very much disposed to think that its place may often be supplied with advantage by bread or potatoes, or some other form of farinaceous food. For myself, I should infinitely prefer a basin of *bouillon* with bread, or a basin of *purée* with bread, to a basin of *bouillon* and a plate of *bouilli* after it, without bread; and I think my instincts do not mislead me in this matter. I have a small appetite, and no superabundance of digestive power; my inclinations turn toward vegetable food rather than toward animal food, and I can easily see that farinaceous food may be really more suitable to the wants of my system than any thing which is left behind in the *bouilli*.

For making an ordinary *pot-au-feu*, Gouffé, in his *Livre de Cuisine* (Paris, Hachette, 1867), tells us to take of fresh meat about one and three fourths of a pound, fresh bones (smashed) about one fourth of a pound, leeks about seven ounces, carrots, onions, and turnips about five and a half ounces, parsnips about one ounce, celery about one third of an ounce, salt about one ounce, one clove, caramel a very little, water seven imperial pints. Having placed the meat and bones in the stew-pan, with the bones undermost, the water is poured in, and the salt added. Then, after putting it upon the fire and allowing it to remain there until the water boils, and a scum collects upon the surface, the pan is removed from the fire and the scum skimmed off, a little cold water being first added for some purpose or other which is more intelligible to a cook than to me. Then this process of boiling, adding a little cold water, removing from the fire, and skimming, is repeated twice. Then, and not until then, the vegetables are added, and the pan is placed near enough to the fire to allow the contents to simmer (not to boil) for three or four hours. Then the *bouillon* is poured off and the *bouilli* prepared as a dish in one way or another. And lastly, when the *bouillon* is in the soup-tureen, and not until then, enough caramel is added to it to give it a delicate orange tinge—*une tainte dorée*. The lid of the stew-pan is never to be closed down tightly, for if this be done the *bouillon* is very likely to spoil by becoming thick and muddy.

The quantity given here is for four or five persons. To try and

make less, Gouffé tells us, is bad economy, likely to issue in bad cookery, and this is intelligible enough, for the *bouillon* may be used in various ways, not only on the first day, but on the day following. The imperial pint, containing twenty onnces, is the pint referred to.

I think that bread may still be very properly spoken of as "the staff of life," and that other farinaceous articles of food may very properly be admitted into the same category with bread. The composition of wheaten flour—which is more or less that of all flour prepared from cereal grain (oats, rye, barley, maize, rice, and the rest), and of leguminose seeds or pulse (peas, beans, lentils), and also of potatoes and some other tubers and roots—according to Dr. Letheby, is: Nitrogenous matter, 10.8; fatty matter, 2; carbo-hydrates (starch, sugar, and the rest), 70.5; mineral matter, 1.7; water, 15. The nitrogenous matter consists of vegetable fibrine, albumen, and gluteine in the rough form of gluten. The fatty matter is in no way peculiar. The non-nitrogenous carbo-hydrates are starch, dextrine, sugar, gum, cellulose, and lignine—starch chiefly. The mineral articles comprise phosphates of lime and magnesia, salts of potash and soda and silica. Leguminose seeds or pulse contain as much as from twenty-five to thirty per cent of nitrogenous matter, mainly in a form of caseine called legumine; rice and potato contain as little as about eight per cent of nitrogenous matter, and as much as eighty per cent of starch, the amount of nitrogenous matter and starch in these articles of food being in an inverse ratio to each other. Fatty matter is especially abundant in oats and maize. It is evident, therefore, that there is much in these vegetable articles of food which may take the place of the nitrogenous and oily articles which are supplied in animal food.

There is no essential difference as to chemical composition between vegetable albumen and fibrine and legumine and oily matters and animal albumen and fibrine and caseine and oily matters; there is no perceptible difference in the albuminose or peptone into which the vegetable and animal nitrogenous substances are alike transformed in the process of digestion; there is no difference in the way in which the vegetable and animal oily matters are emulsified and then taken up directly into the general circulation of the blood. Nor is it difficult to see how the starch and sugar and other non-nitrogenous materials which are peculiar to vegetable bodies are disposed of within the system. The way in which starch is disposed of in the stomach and bowels is not very well made out, and all that can be affirmed with certainty is that a great part of it finds its way into the liver through the portal system of vessels, and is detained there for a time in the

form of amyloid substance or glycogen—a detention which is not altogether unaccountable, for, as Dr. Pavy points out, this substance “possesses diametrically opposite physical properties to sugar, being a colloid, and therefore non-diffusible, instead of a crystalloid and diffusible.” There is no sufficient reason to suppose that the action of digestion, be that what it may, is always to transform the starch into sugar; for sugar in quantity could not be formed in the stomach and bowels without passing directly into the general circulation, and so out from the blood into the urine by way of the kidneys—without making, that is to say, the phenomena of diabetes a natural state of things instead of an unnatural. Nor is there sufficient reason for supposing that the amyloid substance of the liver is transformed into sugar, for this substance is as readily oxidizable and as fit for force-fuel as sugar. Nay, it may be questioned whether sugar itself is the force-fuel which the system is in need of. There is a very rapid generation of lactic acid in the stomach and bowels when sugar is taken as food, and it is not unintelligible that it should be so; for, with the help of a ferment of some sort, grape-sugar is readily converted into lactic acid. Indeed, all that has to be done is for one atom of anhydrous grape-sugar to split up into two atoms of lactic acid. Nor is it unintelligible that a certain part of the starch taken as food should pass, as it would seem to do, not into amyloid substance or glycogen, or into sugar, but first into dextrine, then into sugar, and then into lactic acid: for, as it seems in the list which I show you, there is a close chemical correspondence between these various substances and those which are akin to them. Thus: Starch, dextrine, cellulose, lignine or woody matters, and gum, carbon 12, hydrogen 10, oxygen 10; cane-sugar, carbon 12, hydrogen 11, oxygen 11; grape-sugar, and amyloid substance, carbon 12, hydrogen 12, oxygen 12; lactic acid, carbon 6, hydrogen 6, oxygen 6. There is no difficulty, therefore, in understanding to some extent how it is that, under the action of pepsine, or diastase, or some other ferment, starch and dextrine and cellulose and lignine and gum and cane-sugar and grape-sugar and amyloid substance may be transformed into the lactic acid which forms so important an ingredient in gastric juice, and that the lactic acid so formed, after having done its work in digesting nitrogenous substances, may be absorbed into the circulation directly, and be there disposed of in oxidization as a very readily inflammable fuel—perhaps as the more readily inflammable of all the force-fuels. And certainly there is no reason to believe that amyloid substance or sugar is more inflammable than lactic acid, but rather the contrary,

for lactic acid can not be traced, as amyloid substance and sugar can be, beyond the limits of the alimentary canal. In any case I am, I think, at liberty to assume that a good deal of starch and sugar, and of the articles akin to them, are of great use in supplying lactic acid, and that this lactic acid has to do very important work, not only in the primary processes of digestion, but also as force-fuel.

The effect of taking sour buttermilk, sour milk, and sour whey—the sourness of which depends upon the presence of lactic acid—is unequivocally beneficial in many cases. I have long been in the habit of recommending these articles in cases where the digestive power is feeble and the circulation wanting in vigor, and I am quite satisfied that the practice is very satisfactory in its results. Instead of being “a weight to the stomach,” as fresh milk often is said to be in these cases, these drinks are generally found to facilitate digestion and to keep up the warmth of the system. Indeed, by using sour buttermilk and sour whey, I have often found it possible to leave off doses like rum and milk and to do without alcoholic drinks altogether.

I have more than once heard an Irish peasant say that he misses the sour milk he takes along with his potatoes almost as much as the potatoes themselves, and that “it warms him like whisky and keeps off the rheumatiz.” I have again and again felt myself benefited by taking buttermilk. And, certainly, I find it difficult to turn a deaf ear to all that I have heard in praise of the whey-cure in Switzerland and elsewhere by those who have tried it for dyspepsia and rheumatism. I was led to recommend sour buttermilk or sour whey by reflecting on these very facts.

THE THERAPEUTICAL VALUE OF CHRYSOPHANIC AND PYROGALLIC ACIDS.—At a recent meeting of the New York Dermatological Society Dr. Morrow formulated the following conclusions touching chrysophanic and pyrogallic acids:

1. That chrysophanic acid is perhaps the most efficient agent known to the profession for the external treatment of certain cases of psoriasis, especially chronic cases which have resisted other methods of treatment.
2. That its range of application is limited; in children, in patients with sensitive, irritable skins, and in acute cases generally, it is contra-indicated.
3. That in psoriasis affecting the face and hairy scalp the intensely

irritating action, producing puffiness of the face and eyelids, and its discoloring effect upon the hair, render its employment impossible.

4. That it is prompt in its action, a week or ten days' active treatment being usually sufficient to develop its full therapeutic efficacy.

5. That its curative effect is only temporary; it does not afford a safeguard against relapses.

6. That it probably acts only locally and by virtue of its irritating properties, setting up a substitute inflammation, which modifies or corrects the tendency to the inflammatory overgrowth of epidermic cells.

7. That its employment is attended with certain objectionable results, some of which always follow its use, while others seem to depend upon idiosyncrasy, physiological and morbid predispositions, etc.

8. That a brownish, prune-juice discoloration of the skin which persists long after the application is discontinued, a reddish staining of the hair and nails, and an indelible dyeing of the clothing are inseparable from its use.

9. That the erythematous and furuncular inflammations which occasionally follow its use may be classed as incidental effects, as they do not always depend upon an excessive strength of the preparation employed, but are frequently manifest after a mild application; intense dermatitis, resulting in exfoliation of the epidermis in large flakes, has been observed after an application of ten grains to the ounce.

10. That the strength of the ointment recommended by Balmanno Squire (two drams to one ounce) is excessive; a milder strength (twenty grains, one dram to one ounce) being usually sufficient to develop the full therapeutical virtues of the drug.

11. That in other diseases for which it has been recommended, as acne, favus, pityriasis versicolor, eczema marginatum, etc., chrysophanic acid possesses no advantages over certain other drugs which are commonly used.

12. That pyrogallic acid is a drug which is free from some of the more objectionable features of chrysophanic acid. It does not (in ten-per-cent ointment) inflame the skin, it does not produce edema of the face when applied to the scalp, and the discoloration is much less marked and permanent.

13. That it should, nevertheless, be used with caution, as pernicious results have followed its too free use. When freely used for two or three weeks it produces an olive-green or tarry condition of the

urine, with prostration, febrile disturbance, and other general symptoms.

14. That its curative action in psoriasis is much less rapid, but apparently more permanent than that of chrysophanic acid.

15. That its freedom from irritation and its absence of odor render it an admirable substitute for chrysophanic acid and oil of cade in diseases affecting the scalp and face.

16. That while its effect in psoriasis is slower and less brilliant than that of chrysophanic acid, its range of therapeutical action is much more extended. It causes to disappear the nodosities of lupus, the hyperplasiæ of syphilis, epidermic and palpillary hypertrophies, and seems to have a good effect in promoting the cicatrization of wounds.

17. That it seems to act by virtue of its stimulant and irritating properties; it hardens and shrinks the tissues, shrivels up unhealthy granulations, and acts as a hemostatic.

Dr. Sherwell thought that Dr. Morrow's conclusions were so just that they would be agreed with by the majority of dermatologists. He believed that ointments of chrysophanic acid of the strength used by Squire and those who followed his advice (one half to two drams to one ounce) were entirely too strong. He himself never used it in a greater strength than ten grains to one ounce, and often prescribed seven, or even five grains to one ounce.

Dr. Bulkley said, as regards the strength of ointment to be used, he had not found that small quantities of the drug were always sufficient, having had one patient who used it the strength of three drams to one ounce before the eruption would yield. As regards pyrogallic acid in epithelioma, he had ordered the pure acid sprinkled on, and poultices afterward applied over the lesion, and had found that its effect in cutting down the epitheliomatous granulations was often wonderful. He recalled particularly one case of a large epithelioma of the temple, in which a pyrogallic acid ointment was used without subsequent poulticing, and when he last saw the patient the ulcer was almost entirely healed.

Dr. Denslow remarked that he had recently made trial of another drug in the treatment of psoriasis, in cases of tender skins, on the face and scalp, and in children, where he regarded chrysophanic acid as contra-indicated. This agent was the oil of turpentine, used at first in the strength of one part to four, or one to three, gradually increased to equal parts of the oil and olive oil. He had applied it by friction with a cork covered with flannel, as recommended by Dr.

Piffard. In many cases he has found this agent to act as well as chrysophanic acid ever does, and it neither produces staining nor irritating effects.

Dr. Piffard said that he agreed fully with sections 1, 2, 3, 5, 7, 9, 10, and 13 of the report. As regards section 4, his experience had been different from that of the author of the paper. He had found it desirable to keep up the action of the drug for a longer period, sometimes for at least one month. He usually began treatment with an ointment of ten grains to the ounce, and gradually increased to one dram to the ounce, and, as a rule, with great benefit to his patients. As to the discoloration produced, it did not seem to him that it lasts so long as intimated in the paper; it generally disappearing in from two to three weeks in his experience. The color produced was, he thought, often a beautiful Indian red, rather than brownish, or of that of the juice of prunes. As regards the use of the drug in pityriasis versicolor, the "chromophytosis" of our nomenclature, he thought it wonderfully efficient, and in so-called eczema marginatum he thought it one of our most valuable agents. He had never had any success with it in ringworm of the scalp, but had often found it very useful in ringworm of the body. The discoloration produced by pyrogalllic acid he had found to be black or brownish. He did not use this agent as much as he did chrysophanic acid, having had one or two unpleasant experiences with it. With regard to section thirteen, he thought that it was not put with sufficient force. Pyrogalllic acid is a dangerous drug when extensive applications of it are made. It has been found to kill dogs experimented upon with it. It is well known that it is absorbed by the skin, and that it is one of the most active reducers known to chemists.

With regard to the staining of the clothing caused by chrysophanic acid, it seemed to him that by using the pure powder, and afterward painting it over with collodion, would obviate that drawback. Scarenzio used collodion to limit the extension of the inflammation produced by the drug to the diseased patch, his method being to surround the patch to be treated with a ring of this fluid before applying the acid. He had met cases of psoriasis in which chrysophanic acid did not seem to exert the slightest effect, and other instances in which it did positive harm, causing the eruption of fresh patches of the disease in the erythematous areole which it excited around old patches. He had also sometimes noticed that it failed to remove the disease when it had relapsed, although it had caused its disappearance when used the first time.

Dr. Morrow stated that he always directed the scales of psoriasis to be removed before applying the acid, either mechanically or by the use of salicylic acid, one part in sixteen of alcohol. He desired to emphasize the statement that certain skins will not tolerate chrysophanic acid. In one case he had found that five or even three grains of the acid to the ounce developed intense dermatitis. In another case even two and a half grains to the ounce were not tolerated, the whole epidermis desquamating in large flakes when an ointment of this strength was applied.

THE INDICATIONS FOR THE USE OF DIGITALIS.—Dr. J. Milner Fothergill, in a paper published in a recent number of the Glasgow Medical Journal, says, touching the use of digitalis:

The correct use of this potent remedy—invaluable in certain cases of lack of power in the heart—is scarcely as yet general. Old established views take a great deal of uprooting; and yet they must be uprooted before new views can be built up in their place on the same ground. Digitalis was long regarded as a cardiac sedative, “the opium of the heart,” because it rendered the heart’s action slower or less tumultuous. Slower, certainly, in those cases where the rapidity is due to the action of an irritable muscle; irritable, because becoming exhausted. But when the rapidity of the heart’s action is due to nervous disturbances the digitalis is useless, or very nearly so. Digitalis then is not useful “because it slows the action of the heart.” This is an error. In many cases it exercises no action worth estimating upon the rapidity of the heart’s contractions. While in others it is of the greatest service when the action of the heart is not accelerated before its administration, nor slowed while the good effects are being felt. “Less tumultuous,” most certainly, in many cases. Where a heart is laboring hard, yet accomplishing little—when the muscle is doing its best to the utmost of its power, but is heavily handicapped—then digitalis will usually calm its action, not, however, by any sedative effect, but by increasing the vigor of the cardiac contractions. In other words, it may be said that digitalis achieves the more complete emptying of the ventricle at each systole; and that is what is wanted in these cases.

Now, sometimes digitalis will both slow the heart’s action and do away with palpitation at one and the same time. This is most commonly seen in simple dilatation of the left ventricle, without necessarily any valvular lesion; the mitral valve may leak, but not as the

result of any distortion of the valve curtains, but rather the ostium has stretched with the yielding of the heart-muscle, and the valve curtains become insufficient to close the ostium completely on the contraction of the ventricle. Such a condition is common where the dilatation has taken place too swiftly for the valve curtains to stretch *pari passu* with the yielding of the muscle. Here digitalis is usually of priceless value. But its utility will be greatly enhanced here by putting the patient at complete rest; which means strictly confined to bed—just as much as if the case were one of broken thigh.

“Digitalis is to be given in mitral disease, but withheld in aortic disease,” is a rule of thumb driven into the student’s mind, like a nail into a plank, by some teachers. Well, as a broad rule it is well enough; digitalis is usually of service in mitral disease; but how about aortic disease? When a fairly hypertrophied left ventricle is struggling against a contracted aortic orifice, but not quite successfully, how about digitalis? The system is suffering for want of arterial blood because the ventricle is unequal to driving a *sufficiency of blood through the narrowed ostium in the normal time* to keep the arteries full. Here digitalis often acts most potently, indeed furnishes the most brilliant illustration of its properties. By increasing the vigor of the driving power—the ventricular contractions—the normal amount of blood is pumped into the arteries in the normal time, and tissue nutrition is improved every where, including the structures of the heart itself. Or aortic regurgitation is dilating the left ventricle too swiftly for hypertrophy to be built up to arrest the dilating process; what is the value of digitalis here? Simply inestimable. It arrests the dilating process! the ventricle recovers its size, and, with that, much of its vigor; the muscle is better nourished, and then that compensatory hypertrophy is built up which often enables the patient to pursue an active life for years.

Certainly, on the other hand, both in aortic stenosis and aortic regurgitation, while the muscular compensation is complete and sufficient, and the patient is fairly well, there is no good end to be attained by giving digitalis. We do not give digitalis because there is valvular disease present, but when the system is suffering in consequence of the said valvular lesion. The digitalis has no influence upon the injured valve. But it is of mighty service when the muscular hyperplasia, which compensates the valvular defect to a great extent, is not provided by the powers of nature. By the aid of digitalis the natural powers will often be enabled to surmount the difficulty and secure a muscular growth, or hypertrophy, which is practically compensatory.

Such compensation by muscular hypertrophy is most perfectly seen in aortic stenosis. And on this hangs the good prognosis of aortic stenosis.

It is quite clear that under these circumstances the action of digitalis is powerfully aided (1) by rest, reducing the demand upon the heart; (2) good food to aid in nutrition of the tissues; and (3) iron as a hematic. In mitral disease the effect of digitalis upon the right ventricle often leads to most satisfactory results.

Now, when we come to discuss the effects of digitalis upon the right ventricle, there is something more to be considered than the heart merely. There is the respiration! Ordinarily we breathe eighteen times per minute or thereabouts. There are about two hundred and fifty inches of "residual" air in the thorax, and the act of respiration takes place normally about eighteen times per minute. By such "tidal" air the "residual" air is kept fairly pure. But when the thoracic space is encroached upon either by (*a*) air in emphysema; by (*b*) connective tissue in cirrhosis; by (*c*) diminution of the caliber of air-tubes from thickening of the bronchial lining membrane; or (*d*) by engorgement of the blood-vessels in mitral disease, then the respiration must be more frequent in order to keep the residual air fairly pure. The stimulus to respiration is the effect of venous blood, laden with carbonic acid, upon the respiratory center in the medulla.

When there is an excess of carbonic acid in the blood circulating in this center, then the respiratory efforts are increased in vigor until the excess of carbonic acid is got rid of. Now, when the right ventricle is embarrassed, it is not usually enough to give digitalis to increase the energy of the contractions of the right ventricle. Though, of course, all medical men of much experience have met with striking illustrations of the almost magical effects of digitalis in the pulmonary engorgement of mitral disease; many also can tell of cases where digitalis failed to afford relief under these circumstances, or even increased the respiratory embarrassment. Now, my rule for some time past has been, under these circumstances of mitral lesion, no matter what form, with embarrassed respiration, to give strychnia, a well recognized "respiratory stimulant."

Here, the effect of the digitalis upon the right ventricle, and that of the strychnia upon the respiratory center, work together for good with most satisfactory results. The good effects of this combination are conclusively demonstrated in those cases where digitalis, given alone, fails to do good, but where the addition of strychnia at once makes a striking alteration. Inversely, when there exists any condi-

tion of lung or bronchiæ by which the respiration is embarrassed, or the thoracic space diminished, then digitalis may be added to the cough mixtures with decided advantage. Whenever the breathing is embarrassed and the radial pulse feeble, while the contractions of the heart are vigorous upon auscultation—a condition which tells that the right side of the heart is laboring—then digitalis may be given with a respiratory stimulant, as ammonia, or nux vomica, or both, to the great relief of the patient. Usually, that is. Of course, if there be anatomical changes which forbid real relief, then the effects are less palpable. The proper relation of digitalis to stimulants of the respiratory center is a matter not understood as generally as is desirable.

The indication then for digitalis is not a murmur in the heart, nor a certain form of valvular lesion, nor tumultuous action, nor yet rapidity of action, but, as Rosenstein has put it, whenever it is desirable “to fill the arteries and empty the veins.” That is the impression which each student of medicine should form in his mind as to the action of digitalis. If he would do so, the doubts which otherwise may beset his mind in the exigencies of practice will not often embarrass him. To remember Rosenstein’s axiom will serve him well many a time and oft, when in doubt as to what to do—to give or withhold digitalis. Say it is a case of aortic regurgitation: if the arterial system is well filled then digitalis is contra-indicated; but if the wall of the heart be yielding in the later stages, then surely it ought to be given. In almost all cases of mitral lesion digitalis is indicated. But there is another condition in which digitalis is sometimes given with injurious effects which contrast with these conditions. The hypertrophied gouty heart often palpitates when there is arteriole spasm, and the larger arteries are tense and full of blood. The resistance offered by this full arterial system to the onward flow of the blood at the cardiac systole is such that the ventricle palpitates in its efforts to contract effectually. Such a condition is commonly seen in the “chronic Bright’s disease without albuminuria,” so well described by Dr. Mahomed. Here digitalis does no good, but harm; for the arteries are already full to the risk of apoplexy. Indeed this last accident has followed the administration of digitalis under these circumstances. The full artery, then, is a contra-indication, just as much as an empty artery is an indication for the administration of digitalis, whether the heart be diseased or not.

Digitalis is a diuretic, says another: “Whenever the bulk of urine rises then I know digitalis is doing good.” Certainly, if a horse be yoked to a cart previously stationary, and after that the cart be seen

moving away, it is a pretty accurate inference that the horse is drawing the cart. The bulk of urine, as Traube taught, is the index of arterial fullness. When the arteries are filled by the action of digitalis the bulk of urine is increased. The rise in the bulk of urine tells in the most unmistakable manner that the action of the drug is filling the arteries. In dropsy, when the bulk of urine is low and the specific gravity is high, then digitalis is preëminently useful. When albuminuria is present from venous engorgement in heart failure, the administration of digitalis will often be followed by its disappearance. As the arteries are filled the veins are depleted; the albumen, which tells of venous congestion, disappears as this state of the veins is relieved; as the arteries are filled the bulk of urine rises.

The great matter for the practitioner to remember about digitalis is, that it increases the energy of the ventricular contractions; and that the clinical indication for its administration is an empty artery. With such view before his mental vision the practitioner will rarely experience any difficulty in deciding when to give, or when to withhold the potent digitalis—potent for good or harm according to the circumstances under which it is prescribed.

In cases of cerebral anemia digitalis may often be prescribed with advantage when it is desirable to raise the blood-pressure within the arteries.

IRRIGATION OF THE LARGE INTESTINE IN DYSENTERY.—Professor J. T. Whittaker, of Cincinnati, in a recent clinical lecture, published in the Cincinnati Lancet and Clinic, took as his text an alarming case of dysentery, which he had treated successfully by irrigation of the large intestine, after ipecac—in which he has great faith—and other means had failed. He said:

Injections of nitrate of silver, to each pint of water one half dram, were thrown into the rectum, and the first injection of three pints held the disease in abeyance for two days. The dysentery returned, however, and then alum injections, one dram to each pint, were administered with most beneficent effect. No recurrence of the attack since then has followed. The patient is now cured; she has but one natural operation a day. She is taking the fluid extract of eucalyptus for its tonic effect, and is feeding on milk and animal food. Injections in this way are of modern use. Nitrate of silver has been especially thus recommended, but alum has the advantage of being less dangerous and less costly. The effect is possibly due to the flushing out of

the bowel, by means of which the germs of the disease with the decomposing detritus of tissue are all carried away. Carbolic acid was recommended once for the same purpose, but is objectionable from the fact that where there is ulceration of the bowel carbolic-acid poisoning may be set up. In its place, however, salicylic acid has been used, being less dangerous, besides deodorizing the stools, which are generally indescribably offensive in dysentery. The large bowel holds six imperial pints; we succeeded in injecting only three pints, and had to desist on account of pain; the injection is allowed to escape at once. In a case of acute epidemic dysentery, first, if possible, give large doses of ipecac—twenty to thirty grains every four hours. If this should not quickly be followed by any benefit, have recourse to these injections.

The patient though cured of the first attack is subject to relapses caused by errors in diet and change in weather.

Should symptoms of dysentery again appear we would give ipecac again, but in smaller doses—one half to one grain every three or four hours alone, or with bismuth or soda, or both. Of course, a mild case of sporadic dysentery would call for nothing but light laxation. Remember only and always that even the most ancient authors knew and said that dysentery was a disease which constipates the bowels, and hence always avoid astringents.

TREATMENT OF GONORRHEAL CYSTITIS.—Dr. P. Geffrier writes, in the *Revue de Chirurgie*, that the treatment of gonorrheal cystitis consists in the local application of a two-per-cent solution of nitrate of silver to the diseased mucous membrane. The instruments employed are a flexible catheter with an olivary point of the size eighteen or twenty (Charrière)—unless a stricture compel the use of a smaller one—and a small Auel's syringe. The catheter is attached to the nozzle of the syringe, and both are filled with the solution. The instrument is then oiled and passed up the urethra until the bulbous extremity is felt to enter the bladder. It is then slowly drawn back until the point is arrested at the entrance of the urethra. When in this position the piston of the syringe is pressed upon and a few drops of the nitrate of silver solution are slowly dropped upon the mucous membrane of the neck of the bladder. For the first injection, fifteen drops of two-per-cent solution suffice. This amount is

subsequently increased to twenty, thirty, or even fifty drops. The injections are to be repeated every other day. The pain caused by the application is slight and but of short duration. Internal treatment by copaiba or sandalwood oil may be conjoined with the local application, but it is not necessary. The injections should be continued as long as the frequent desire to urinate exists, even though all the other symptoms have subsided; otherwise there is danger of a relapse. In some severe forms of gonorrheal cystitis the inflammation is not limited to the neck of the bladder, but involves, in greater or less degree, the entire vesical mucous membrane. In these cases it is advisable to wash out the bladder thoroughly with a solution of nitrate of silver of one part in five hundred, in place of the local application of a stronger solution. The injections should be made soon after the patient has passed water, in order to avoid the precipitation of the silver by the chloride of sodium in the urine. (Medical Record.)

EXCESSIVE EATING AS A CAUSE OF DISEASE.—Dr. Liveing, one of the first of dermatologists, says in the *London Lancet*:

I frequently meet with cases of intractable eczema pudendi in women past middle life, of sedentary habits, and eating three large meat meals a day, and trying by all means in their power to stimulate their appetite, under the erroneous impression that they are “keeping up their strength.” Now, in these and similar cases, medicine and local treatment are almost equally useless, unless there is at the same time a thorough reform in the diet. The first point is to deprive the patients of sugar as an article of food, except just enough to make light puddings palatable. The reason for this is that much of the sugar passes the liver unchanged, and is therefore worse than useless as food. The next point is greatly to reduce the animal food, especially mutton and beef, and to substitute for it simple clear soup, and poultry or fish in moderate quantity once a day. Lastly, the chief part of the daily diet should be made up of light, farinaceous, and milk food, such as bread, rice, and macaroni. This is, I know, contrary to the view often entertained, that saccharine urine should be treated by an animal diet, and that starch should be as much as possible excluded. Now, whatever good may result from such a diet in

some cases, I am quite sure that it does not answer in those to which I refer; on the contrary, exactly the reverse holds, and the old routine practice, except so far as sugar is excluded, is quite wrong. I have seen the sugar disappear from the urine and the eczema depart under a change of diet such as I have above recommended. The truth is that many people at sixty, when the tissue changes are slow, eat as much or more than they did at twenty, when all the processes of change are at the height of their activity; what wonder, then, that unnatural work is thrown upon the skin, kidneys, and other excreting organs of the body. There is some substantial truth in the saying that small eaters live the longest.

SULPHATE OF ATROPIA IN THE TREATMENT OF CORYZA.—According to Dr. Gentilhomme, sulphate of atropia (from a quarter of a milligram to one milligram, given as a pill, say one half minim to two minims of the *liquor*) has an immediate effect in the first stages of coryza, often arresting the progress of the disease. It also produces great relief when the coryza is confirmed, but its action is less remarkable than at the beginning of the inflammation. When bronchitis exists at the same time, the sulphate produces an equally favorable effect upon the bronchial mucous membrane. The employment of sulphate of atropia is based upon the fact that it has the power of lessening the nasal mucous secretion to the extent of complete arrest; and at the same time it acts beneficially upon the vessels by relieving their congestion. (*Rev. Méd. Française et Étrangère.*)

OPERATION FOR VARICOCELE.—Mr. Barker, in the *Lancet*, describes an operation for varicocele, which he had performed successfully in three cases. The operation is but radical, with the antiseptic precautions, causes less trouble to the patient than the ordinary methods. The skin of the scrotum was thoroughly cleansed with a five-per-cent carbolic lotion, as also all instruments and the surgeon's hands, no spray being used. The scrotum was then pinched up between finger and thumb in the usual way, so as to include the veins and exclude the vas deferens; it was then notched with a scalpel, and through the

opening thus made a needle bearing a medium-sized twisted silk ligature (previously soaked for about an hour in the same carbolic solution) was passed. The veins were then allowed to slip backward, and the needle was made to carry the silk forward again through the same puncture, but this time in front of the veins. The latter were thus, of course, included in the two loops of silk leaving the scrotum by the same aperture. The ends of these were now tied tightly over the veins about one eighth of an inch apart. They were then cut short and allowed to slip into the scrotal tissues. Every thing was in the mean time protected from any contamination by frequent wiping with a carbolized sponge. A little padding of salicylated wool was the only dressing.

TREATMENT OF VENEREAL AND COMMON WARTS.—Prof. Unna recommends for the treatment both of venereal and of ordinary warts the continuous application of unguentum hydrargyri, containing five per cent of arsenic. In the case of a young girl, on whose hands were a hundred or more warts, the application for three weeks of a plaster, containing in each 0.2 square meter ten grams of arsenic and five grams of mercury, caused entire disappearance of the disease without any irritation of the healthy skin. Cure was effected not by necrotic destruction of the warts, such as occurs in the use of caustics, but by resorption, as in cases of spontaneous cure. (*Monatshefte für Prakt. Derm.*)

CORROSIVE SUBLIMATE IN THE TREATMENT OF GONORRHEA.—Dr. Liestikow (*Deutsche Medicinal-Zeit.*) thinks he has confirmed by a series of experiments the discovery, made by Neisser, of the presence of a special form of bacteria in gonorrheal discharges. In the first stage of a gonorrhea, when the discharge is thick and abundant, but few of the bacteria can be seen. They exist, however, in great numbers in the thin and scanty secretion of the later stages, sometimes even when the disease has existed over a year. In the treatment of gonorrhea the author employs an injection of corrosive sublimate, which Koch has found

most fatal to the various forms of bacteria. He uses a solution of one part to twenty thousand, one in ten thousand being found to be too irritating. In private practice a still weaker solution of one part to thirty thousand is employed. The injections are made three times a day, and should be continued for three or four days after all discharge has ceased. The bacteria disappear, or are greatly diminished in number, after one day's use of the injections, but return again if the latter are discontinued too soon. Treatment by injections should not be begun until after the acute inflammation has subsided. (New York Med. Record.)

PILOCARPINE IN POLYURIA.—A patient suffering from polyuria azoturica used belladonna, bromide of potassium, laudanum, injection of morphine, and electricity without effect. (*H. Morgagni Giornale*.) Hypodermic injections of nitrate of pilocarpine, 0.20 in water 20.0, diminished the daily secreted urine from ten litres to two litres, and the quantity of urea was reduced from nine grams to three grams. The weight of the body increased to eight kilograms in two months' time. In polyuria glycosurica the sugar disappeared after a short time. Fifteen injections will generally cure these diseases. (New York Medical Record.)

A NEW MERCURIAL FOR HYPODERMIC USE.—After several years of experimental and practical trials, Professor O. Liebreich has at length devised a preparation of mercury which is especially serviceable for hypodermic use. He announced his discovery at the recent meeting of the Berlin Medical Society. The name of the new compound is formamid of mercury, or *hydrargyrum formamidatum solutum*. Liebreich has found that about thirty injections of a one-per-cent solution suffice for ordinary cases of syphilis. Given internally, the drug is inert.

Notes and Queries.

SIR THOMAS WATSON, BART., M.D., F.R.S.—The following appreciative notice of the good baronet and illustrious physician, prepared by Ernest Hart, Esq., the very distinguished editor of the *British Medical Journal*, we copy almost entire:

Few men in any profession have descended to the grave honored, beloved, and respected in a higher degree than Sir Thomas Watson. Throughout a career of professional activity, prolonged to the utmost limits which the conditions of life allot to man, he attracted to himself admiration, regard, and respect—admiration of his rare combination of mental qualities and gifts, of his wide professional knowledge and attainments, his power of exposition as a lecturer, his keen clinical insight and practical sagacity, his rich and readily available stores of well classified experience, his accuracy of thought and felicitous clearness of expression, his success as a practitioner, his brilliant powers as a teacher, and his unrivaled faculty of smooth, apt, and copious diction as a writer; regard and respect for his serene and gentle temper, his modest dignity, his benevolent kindness, his unfailing clearness of judgment in the complicated relations of the life of a physician in large practice, and, again, as a professional leader to whom reference was constantly made in the troublous questions of professional etiquette and professional policy, as the head of a great college distinguished for its conservative traditions, for its reputation for learning, and for the important interests under its charge, and passing through periods of active development and critical change. Singularly accessible to all who sought his age or his advice; averse, from natural tenderness, to inflict pain, or even a shade of disappointment, by word or deed; with a mind peculiarly open to argumentative convic-

tion, and of that thoughtful cast which saw quickly the objections to, as well as the reasons for the conclusions which were pressed upon him, Sir Thomas Watson possessed a character and a disposition which did not allow him to pass through professional life wrapped up in his own peculiar work and satisfied with attention to the merely scientific details of his profession, or the rigid performance of his own special daily duties, and the fulfillment of his own personal ideal of work or of happiness. Nothing that happened in the professional world of human or scientific importance was alien to him, and there are few men among his contemporaries who have not at one time or another come to him for advice and guidance, and of all who came there is perhaps not one that left without a feeling of increased confidence in his elevated judgment, in his great knowledge, and in his singular wisdom. Conciliatory to the utmost bounds of kindness, he was never open to the charge of favoring compromise, and thus he retained in a peculiar degree the confidence and respect of all classes of the profession. In him the College of Physicians found a leader never unmindful of its dignity, but sensible of the importance of changes in its constitution which many thought revolutionary. The consulting physician saw in him a typical representative of the dignity of the class; the general practitioner recognized also a sentiment of professional fraternity and a consciousness of the claim of universal brotherhood of medicine, which kept always in the foreground that basis of democratic equality which is the keystone of the heart of professional strength and unity. It is rare indeed to find any man of whom it may be said as of him that there is not one man in the profession who would at any time have declined to have accepted Sir Thomas Watson's judgment on any personal or professional question as final. His sense of justice, his habitual reference to all questions of detail to unassailable principle, his flexibility of mind, and his quick perception of character gave him a rare but well-justified ascendancy over even the ablest of his cotemporaries; and while Sir Thomas Watson practiced his profession he was, during a long period, recog-

nized without dispute as its leader. During the later years of his life, and long after he had retired from practice, he continued to display a keen interest in professional affairs, and was still an eager student of its literature. The opinions which he formed were always provisional—formed upon the best evidence then available, but subject to revision. The last edition of his celebrated Lectures testify to his rare gift of judicial impartiality and to the admirable candor and philosophic modesty with which he revised and altered the conclusions of earlier years, and the unfaltering courage with which he avowed such changes of opinion. Among the most notable instances of such change were the new convictions which he accepted as to the change of type in disease and as to the pathology of cholera. In both instances he had watched with careful study the progress of medical knowledge, and in neither did he hesitate, at the close of the controversies to which they gave rise, to declare himself convinced in a sense contrary to his former opinion, and to set forth with the utmost clearness and graceful simplicity the new conclusions to which he had been led. Still more recently he took occasion to study afresh the relation of vaccination to smallpox, in the light of the discussion which took place at the Conference of the British Medical Association, the subject of animal vaccination, and subsequently to avow in these columns his conversion to the opinions which we had advocated as to the relation of vaccine lymph to cowpox lymph; to withdraw the opinions expressed in his lectures, and to accept the conclusions which we had advocated.

In Sir Thomas Watson the Association loses one of its most revered and respected members, and one of its warmest friends and admirers, and we lose a most frequent correspondent, one to whose unfailing kindness, to whose generous aid, to whose eloquent pen, and to whose friendly correspondence we have for many years owed personally a debt of gratitude and admiration.

Sir Thomas Watson's private letters were models of epistolary composition not only in their singular elegance of expression and their aptness and felicity of thought, but conspicuously

in the unfailing courtesy, in the unassuming, unaffected, and natural modesty, and in the generous kindness of the language in which they were invariably couched. The gentle sweetness of expression, the modest dignity of demeanor, the intelligent kindness which beamed from every feature translated the natural character of the man; and it will be long before the recollection of so sincere a friend, so perfect a gentleman, so accomplished a physician, and so true a councillor will fade from the recollection of those on whose minds they have been impressed by personal intercourse.

The late Sir Thomas Watson was born on the 7th of March, 1792, at Montrath House in the parish of Broadhembury, Devonshire. In 1811 he was admitted to the University of Cambridge, where he took the degree of B.A. as tenth wrangler, in January, 1815, and in the course of the next year took the degree of M.A. He did not begin the study of medicine until the somewhat late age of twenty-seven years, when he commenced his studies at St. Bartholomew's Hospital under the late Mr. Abernethy, who was his friend as well as teacher. During the session of 1820-21 Mr. Watson prosecuted his studies at some of the medical classes in the University of Edinburgh, and then returned to Cambridge, in which university in 1823-4 he held the office of junior proctor. In the following year he took the degree of Doctor of Medicine, and married the daughter of Edward Jones, Esq., of Brackley, in Northamptonshire, whom he had the misfortune to lose five years after their marriage, and three days subsequently to the birth of their second child. Soon after his marriage Dr. Watson commenced practice as a physician in the same street (Henrietta Street, Cavendish Square), though not in the same house, in which he lived fifty-seven years. In 1826 he became a Fellow of the Royal College of Physicians, and in the following year, on the resignation of Dr. Southey, was elected Physician to the Middlesex Hospital. In 1828, when University College was opened, and during the following two years, Dr. Watson, as Professor of Clinical Medicine, in 1831, gave lectures on the cases of disease

which came under his care in the wards of the Middlesex Hospital. He resigned the Chair of Clinical Medicine in 1831, and was appointed Professor of Forensic Medicine in King's College.

In this year his first contribution to medical literature appeared in the Medical Gazette, entitled "Remarks on the Dissection of Bishop, and the Phenomena attending Death by Strangulation." The notorious Bishop murdered an Italian organ-boy, and then took his body to the dissecting-room of King's College for sale. He was subsequently hanged for the crime, and his body was sent to the same institution for dissection. Hence Dr. Watson's lecture on the subject. From that time Dr. Watson was a frequent contributor to the Medical Gazette.

Dr. Watson's private practice had continued to grow and prosper, and a proof of the estimation in which he was held is found in the circumstance that to him was intrusted the care of Sir Walter Scott on his last voyage from London to Edinburgh. In 1836, on the resignation of Dr. Francis Hawkins, Dr. Watson was appointed Professor of the Principles and Practice of Medicine, and while performing the duties of this position he first delivered, during the session of 1836-37, those *Lectures on the Principles and Practice of Physic* which take first rank among the standard classics of medicine. It may be convenient to our readers to be reminded that these lectures were originally published week by week in the Medical Gazette. The first lecture appeared on September 25, 1840, and the last of the series on September 23, 1842. These lectures have for nearly half a century held their ground as the classical authority in the science and practice of medicine in all English-speaking countries. Like Graves and like Trousseau, he added the charm of eloquence to the solid merits of extensive learning, great clinical experience, sound judgment, and fertility of resource in the expedients of therapeutic practice. The language he used was clear, simple, and familiar; full of apt illustration and happy example, well balanced, marked frequently by striking and unexpected turns of thought, and disdaining neither touches of pathos nor of humor to enforce a conclusion or to illustrate an

opinion. Many a student, taking up the volumes of lectures with ominous anticipations of weary and toilsome reading, has rejoiced to find them as attractive as a romance and more instructive than a manual.

Sir Thomas Watson's funeral, which took place on Friday, December 15th, was attended by a representative gathering of his professional friends; but it will be no exaggeration to affirm that, notwithstanding his advanced age, which daily brought the event nearer to the minds of men, the death of Sir Thomas Watson has left a sense of individual loss and grief in the minds of the profession at large, even in those who only knew the lamented Nestor of the medical profession through the medium of his immortal writings.

We have selected the subjoined correspondence as a good illustration of the reluctance with which Sir Thomas Watson allowed himself to be drawn into any thing like controversy, and, when circumstances necessitated such a course, of the mingled gentleness, firmness, and authority with which he expressed himself. The circumstances are as follows:

Shortly after Mr. Liston's death a letter appeared on December 18, 1847, by Dr. C. J. B. Williams, headed "The Physical Signs of Disease in the Case of the late Mr. Liston." Dr. Williams says that, having seen and heard it stated in many quarters that there were no physical signs of disease detected in the chest of his lamented colleague he thought it right, for the credit of physical diagnosis, as well as in justice to himself, to make known the result of his own examination of the case as recorded in his own note-book. This was to the effect that he had noted a "marked dullness above the left clavicle and scapula (on strong percussion), large tubular breathing and voice-sound in the same space, tubular respiration above upper inner angle of right scapula." This, in connection with his previous disease, he considered "most alarming;" but he adds, "it saves me from self-reproach that I never said any thing to countenance his disposition to make light of his malady, but uniformly asserted my conviction of its serious character." Dr. Williams visited Mr.

Liston the second and last time in November, and expressed in his letter his regret that Mr. Liston did not follow his advice "in any particular," but "got relieved by strong exertion in riding a restive horse, which promoted expectoration." He adds, "after this I did not see my professional friend, as he placed himself under the care of physicians who both before and after this period found no physical signs of disease, and who therefore took a more favorable view of the case than I did. The result is known, and I make no further comment on it."

Dr. Watson replied, calling attention to the injustice done to him and Dr. Forbes by the insertion of the last paragraph, and pointed out that Dr. Williams was "quite wrong in supposing and stating" that they (Dr. Watson and Dr. Forbes) had found no physical signs of disease and had taken a more favorable view of the case than Dr. Williams had; that, on the contrary, both he and Dr. Forbes had been throughout aware of the symptoms stated in Dr. Williams's letter. Dr. Watson pointed out that the whole tenor of Dr. Williams's letter was such as to lead the unacquainted to infer that they had not done as he would have done, warning the patient, and "countenanced his disposition to make light of his malady." Dr. Watson concluded by saying: "Was it courteous or even fair to publish these statements without previously ascertaining from one or the other whether the facts of the case really were as you understood them? Would it have been charitable or generous so to exhibit our mistakes, even if you were sure that we had made them? Do you indeed believe that if our lamented friend had been intrusted solely to your care, and could have been induced implicitly to obey your directions, the fatal 'result' of this disease would have been prevented? One more question I venture in perfect amity to propose for your calm consideration. Is it consistent with your character and your high rank in our profession, with your office (which presents you as an example to so many) in one of our great metropolitan schools of medicine, thus publicly and needlessly, under profession of a zeal for science, to proclaim your own superior sagacity and (by implica-

tion) the comparative ignorance or unskillfulness of others, your contemporaries pursuing, in the same place, to the best of their humbler abilities, the same vocation with yourself, and, in this instance, engaged in the peculiarly anxious duty of ministering to the relief of a professional brother? Would Baillie or Heberden have done this?"

This brought a letter from Dr. Williams retracting the passages complained of, and, finally, Dr. Watson's "letter of satisfaction":

Dear Dr. Williams—I thank you for your candid, temperate, and satisfactory letter of explanation. If (as I am glad to know from your assurance) I misconstrued the meaning and spirit of your letter in the *Lancet*, my excuse must be that I did so in common with every one of those who have spoken to me about it, and they have been many.

Indeed it was the interpretation upon it by some of my friends that first brought the letter under my own notice. It was especially the paragraph which you so frankly retract, with the addition of the next little sentence—"the result is known, and I make no further comment on it"—that (as it seemed to me) gave force and point to all which had preceded. But for this paragraph I should not have thought of troubling you with any expostulation on the subject. I assure you that I did not know, until I saw it so stated to you in the *Lancet*, that "Mr. Liston had first sought your aid," or that he had formally consulted you at all. On the very morning of the hemorrhage he sent me a message simply requesting that I would call on him. I did so on my first going out, and found him recovered from the faintness produced by the loss of blood. But I was not then nor at any time informed that he had previously sent for you. I became aware indeed, at a much later period, that his chest had been once examined by yourself, as well as by another physician, also his colleague in University College. But I believed that these examinations had been casually made upon some occasion of your officially meeting together. Had I known that Mr. Liston had desired your counsel in the first instance, I should have been, not willing merely, but anxious, in a case so painfully responsible, to obtain the comfort and advantage of your valuable assistance.

Let me assure you, finally, that if, writing to you as I did upon the spur of the occasion, I transgressed the just limits of self-defense, or so expressed myself as to cause unnecessary pain to your feelings, I am sorry for having done so. I trust also, and on my own part am assured,

that what has occurred in this very distressful matter will not be suffered to impair the mutual respect and good will which had hitherto subsisted between us.

I remain yours, truly,

THOMAS WATSON.

Of late years, when he had more leisure in the mornings, he was always pleased to receive a visit from any friend, with whom he would talk over the past, brimming over with humorous anecdote referring to his personal experience of men and manners in general. For some time back he was often found, toward the latter part of the morning, reposing on a couch with a small jug of fresh milk ready by his side. He was eminently social in his tastes, and remarkably attached to his children and his four grandchildren, whose photographs and artistic handiwork he prided himself on pointing to on the walls of his consulting room, where, amid books and papers, was the cast of the large bust of Esculapius which exists in the British Museum.

DR. CARPENTER ON HUMAN AUTOMATISM.—The subject discussed was the automatism of those perceptive processes by which are determined the distance, direction, and notably the solid form of external objects. In us this is acquired instead of being congenital as in the lower animals. Many observations of infants and of adults who have recovered sight by means of the removal of the lens (cataract) prove the truth of this statement, and show that a combination of the impressions received from several senses is necessary in order to create the ideas we possess of external objects. A person blind from birth, upon obtaining vision, will not recognize forms like the cube, sphere, and pyramid, notwithstanding the sense of touch has long since made them familiar. Locke doubted this, and the question, then unanswerable, since his time has received repeated answer. For example, a young man whose sight was restored in one eye was unable by vision to distinguish a cat from a dog, both of which he was accustomed to fondle. He finally taught himself to know the cat by handling her frequently, meanwhile looking at her intently. A remarkable case was that of a child aged four

years, blind from birth, who recovered sight by the operation for cataract. He gave evidence of his ability to see. The operation occurred in a house in which the boy had become familiar by feeling his way about. After the operation, while going over the house he at first felt and looked as he went, but for some time evidently preferred the guidance of touch, and eventually began to find his way by sight alone. Upon returning to his home, however, he was quite unable to discover his way by sight among objects perfectly familiar to him, and for a long time closed his eyes in going from place to place. But when taken to a place entirely strange to him he used his sight without embarrassment, and finally overcame the difficulty in using sight at home.

In a third case a blind seamstress obtained her sight, and when shown a pair of scissors could not recognize them without touching them. These examples indicate the amount of education necessary in the training of our automaton, which, once disciplined, subsequently makes no mistake unless something is wrong in the mechanism.

Passing to the automatisms of the higher intellectual processes, the lecturer discussed those uniformities which, some being general in the race, others being the result of special training, and already studied under the name of "laws of thought," markedly illustrate the doctrine of automatism as well as the power of the will to devote itself to such processes as may be chosen. Wordsworth has testified that his best poetry was created by allowing his mind to direct itself intently upon all the phases of his subject, and then waiting for a spontaneous outflow of poetical imagery from his mental mechanism. Mozart, whose musical faculty had from childhood been trained with most assiduous care, had only to think out the general plan of a composition, deciding as to the place to be given to solo, recitation, duet, quartette, etc., and then allow his thought to work of itself and evolve its own results. In the same way trained mathematicians solve difficult problems.

But most instructive of all is the action of memory. We

endeavor to recall some half-forgotten fact, name, or date. After fixing the attention upon the subject for a certain length of time and recalling every accessible circumstance, we find it better to withdraw the attention, to "hang up" the subject, and leave the matter to time. The general result will be a sudden return of the missing fact to the consciousness. In all these cases of "unconscious cerebration" it is noteworthy that we must first give direction to the process, and, moreover, that in order to obtain results we must previously train the automata.

Evolutions of the judgment are also common under the same conditions of a previous training, antecedent fixing of the attention, and, as far as possible, a voluntary development of the process. Thus an executor, unable to decide as to the best solution of a difficult provision in a will, arranged a plan which, though unsatisfactory, seemed the most feasible, and then dismissed the matter from his mind. Some days later, on waking from a sound sleep, a perfect plan flashed into his consciousness, and was accepted without change. Experience has shown that these automata, once trained, work far better when left alone than when the attention is fixed upon them. When we apply the theory of automatism to our beliefs, there arises the question as to whether we are responsible for them, and whether we can believe what we wish to believe. The reply is, that if we have accustomed ourselves to give due weight to all the evidence which may affect our conclusions, we are not responsible for our belief. We may, however, close our mental eyes to certain aspects of the case, just as an unjust judge may refuse to admit evidence on one side and unduly admit it on the other. In such case we are directly responsible for what we believe.

AN IMPORTANT MEDICO-LEGAL DECISION.—Judge Campbell, of the Supreme Bench of the State of Michigan, has given a decision of interest to the medical profession. A surgeon being called in consultation to a case of compound fracture of both legs below the knee, advised amputation of both extremities, which was refused. One leg was amputated, and the other

finally recovered with deformity. The plaintiff sued for his pay, and the defendant claimed malpractice. This decision of the Supreme Court establishes the following points: There is no presumption of law as to the value of a surgeon's services, nor that a jury can ascertain their value without testimony from persons knowing something about it. Nor has a jury a right to reduce the compensation claimed for such service where undisputed testimony shows it to have been appropriate, and on their own unsupported notions that the treatment adopted should have been different.

A jury has no right to ignore testimony that has not been discredited, and form independent conclusions, without testimony, on matters that require proof beyond their conjectures or opinions.

The fact that a surgeon changes a course of treatment adopted by another does not in itself show that the former course of treatment was not proper at the time; nor is the patient's failure to recover perfect soundness of limb in itself evidence of malpractice; nor is the fact that he survived, although he refused to allow a particular course of treatment, evidence that such course might not have been proper under the circumstances.

The jury in an action for the value of surgical services has no right to find malpractice without testimony from persons who are qualified to give opinions on the methods of treatment.

AN ECONOMICAL PILL.--The "everlasting pill" was composed of metallic antimony, which was believed to have the property of purging as often as it was swallowed. This was economy in right earnest, for a single pill would serve a whole family during their lives, and might be transmitted as an heirloom to their posterity. We have heard of a lady, who having swallowed one of these pills, became seriously alarmed at its not passing. "Madam," said the physician, "fear not; it has already passed through a hundred patients without any difficulty."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

A CASE OF DOUBLE UTERUS AND VAGINA WITH PREGNANCY AND DELIVERY.*

BY J. R. WEIST, M. D.

While irregularities in the development of the uterus and vagina are sufficiently common to occasion when met with no surprise to the anatomist or physiologist, they are so rare that the general practitioner seldom meets with a case in which there is so wide a departure from the normal condition as to give rise to a double uterus and vagina. Having lately had under observation a case of this kind, it seems worth while to report it, especially as I had the good fortune to observe the phenomena presented by the case during gestation and delivery.

Mrs. S., a married German woman, twenty-eight years old, presented herself for examination and treatment for dysmenorrhea in December, 1881. She said menstruation first appeared during her thirteenth year, and had continued regularly, but great pain usually preceded and accompanied the flow. In every other respect her health had always been good. She was five feet six inches in height, weighed one hundred and forty-

*Read before the Delaware District Medical Society.

five pounds, and presented all the general appearances of perfect development and good health. She had been married five years, but had never been pregnant; there was no bar to sexual intercourse.

The external organs of generation were perfectly developed, but on examination a fleshy septum was found dividing the vagina into two equal parts; the lower portion of this septum was attached as far forward as the posterior lip of the meatus urinarius, and behind to the posterior commissure of the labia. It was attached along the middle line of the anterior and posterior walls of the vagina, and to the uterus above. This septum was about one fourth of an inch thick, was flaccid and readily pushed against the lateral wall of the vagina when the finger or a speculum was introduced on either side, therefore when either canal was examined the vagina appeared of ample size. The indications observed led to the conclusion that one side had been used as much as the other in sexual intercourse.

In both vaginæ a cervix uteri was found, with the os in a normal position, a superficial examination detecting no variation from the usual condition, except that toward the middle line of the body the uterine neck did not project freely into the vagina, being attached on this side, to within a quarter of an inch of the margin of the os, to the vaginal septum. The distance from one os to the other was three fourths of an inch. A small sound entered the uterus on either side two and a half inches. Using two sounds at the same time, one on each side, the ends in the uterus could not be brought into contact. Evidently two distinct uterine cavities existed. By a rectal examination while the uterus was well drawn down by a large tenaculum the size and shape of the compound organ could be readily made out; the upper part of the body appeared to be about two and a half inches in transverse diameter, and the lower part of the cervix one and a half inches, the length and antero-posterior diameter about normal. The fundus presented at the middle line a notch or depression about half an inch in depth. All of these conditions were not made out at one time, the patient being kind

enough to permit repeated examinations by myself and other medical gentlemen.

The conclusions reached in relation to the case are apparent. No treatment was advised or practiced beyond a slight dilation of both cervical canals.

Various forms of duplication of the uterus in the human female have been met with and described; of these the *uterus duplex separatus*, or *didelphys*, is the rarest. In these cases the two uteri are entirely separate from each other, with generally completely separate vaginae. Two other forms have been met with, the *uterus bicornis*, and the *uterus septus*. In the former the two cornua are more or less completely separated, while the cervixes, or these and a part of the bodies, are united. Sometimes a septum completely divides the two organs, in others one cervical canal is common to both.

In the *uterus septus* the cornua are not separated, but the externally normal organ is divided by an internal longitudinal septum into two halves, the division being either total or partial. A divided body may be associated with a single os, or a single body with a double os. Either of these forms may be associated with a single or double vagina. My patient, it will be seen, presented an example of *uterus bicornis*, the duplication both as to the uterus and vagina being complete.

The manner in which these abnormalities occur is easily understood when the method of the formation of the internal organs of generation is recalled.

During fetal life the fallopian tubes and the uterus are formed from "Muller's Ducts;" the upper portions remaining separate are transformed into the fallopian tubes, while the lower portions come into contact and form a single tube, by a disappearance of the internal walls, which is ultimately changed into the uterus and vagina. When this union of Muller's ducts is incomplete, two more or less complete tubes remain, out of which a double organ (or organs) is formed.

In the lower animals these ducts unite less completely than in the human subject, in consequence of which the uterus

remains divided at its upper portion, running out into two long conical tubes or cornua, the complete *uterus bicornis*. Even in the human female, while the fusion of the two lateral halves of the uterus is usually complete, the cavity of the organ presents a strongly marked triangular form, the vestige of its original division.

In March, 1882, Mrs. S. became pregnant, and during the progress of gestation I was permitted to make frequent examinations, and noted with much interest the phenomena presented.

At the end of the fourth month I was able to discover that the fetus occupied the left side of the uterus. At this time the right cervix, which before pregnancy was as large as the left, was decidedly smaller, softer, and higher up; these changes continued to increase until the time of labor, when the right cervix had seemingly entirely disappeared. It will be remembered that in the unimpregnated state the right uterine cavity had a depth of two and a half inches. During gestation the sound was frequently passed into this side, an operation attended with no difficulty, and a constantly increasing depth noted until the time of labor, when it denoted a depth of six inches.

Labor came on at the time expected, and a careful examination was made at an early period. An inspection of the abdomen revealed that fully two thirds of the uterine tumor was to the left of the middle line, the left os was an inch in diameter, and only different from a normal case in that the utero-vaginal junction was much nearer its edge toward the middle line of the body than elsewhere. When the finger was passed into the right vagina, no trace of os or cervix could be easily discovered, the globular uterine tumor could be felt at the superior strait, the sensation imparted to the finger being precisely like that noticed on making a vaginal examination at the beginning of labor in a normal case before the finger can touch the os. When the index finger of the right hand was in the vagina, the tip resting in the slightly open os, and the second finger of the same hand at the same time in the right vagina, the right os could be found, appearing as a patulous slit on the side of the

round uterine tumor. At this time I invited another physician to see and examine the case.

As before stated, the sound at this time could be passed into the right os, and to a distance of six inches; the finger, passed into the left os as far as possible while the sound was in position, discovered the instrument to be in a separate canal.

Labor progressed fairly and in a normal manner, the only peculiarity observed being that, when the os was opened sufficiently for the head to pass, the margin attached to the vaginal septum was lower than its other portions, having the effect of causing the axis of the uterine outlet to deviate to the left of the middle line of the pelvis. At the same time the vaginal septum was drawn upward and made tense. Some delay of the head occurring at the outlet of the pelvis, delivery was completed with forceps, without accident. The child, a male, was alive, perfectly developed, and weighed eight and three quarter pounds. Before the placenta was delivered the right vagina was found, after some trouble; the septum seemed intact. After still more difficulty the right os was found, and a sound passed into it five inches; while the sound was in position the right hand was passed into the left uterine cavity, and the position of the instrument made out by the fingers through the uterine wall, it being in a separate cavity. On the right side of the partially contracted uterus, near its middle, was a hard tumor about three inches long, and two inches thick at its upper part, half pyriform in shape. This tumor could be felt with the greatest ease and distinctness through the thin and relaxed abdominal walls. It was a part of the uterus, as was easily determined by the fingers of one hand in the uterus and those of the other on the abdomen. It was also certain that the sound in the right cervical canal passed into the tumor. Through the abdominal wall the tumor imparted to the fingers precisely the same sensations as a subserous fibroid tumor in the same location, and might very easily have been mistaken for one had not the conjoined examination by sound and hand been made. It was undoubtedly the undeveloped right half of the uterus.

After these examinations were made the placenta was removed, and with the exception of some malarial disturbance the patient made a good recovery.

Seven weeks after delivery I made a vaginal examination and found that nearly all the vaginal septum had disappeared. It probably sloughed away after delivery. The right and left os were still distinct and almost alike. A sound was not used.

This case raises some interesting physiological questions. How could one half of such a uterus remain almost quiescent while the wonderful changes attending pregnancy went on in the other? How was the right cervix elongated five or six inches? Was it by the stretching of the cervix simply, or by actual growth? If the former, is a large part of the great bulk of the uterus at the end of pregnancy made of the changed cervix, and is it true that the cervix is, in a sense, absorbed into the body of the uterus, contrary to the teaching of the majority of modern observers? If the latter, by what physiological law did such great change take place in the cervix while the body of the uterus underwent almost no development?

RICHMOND, IND.

REMOVAL OF THE FORCEPS BEFORE DELIVERY OF THE HEAD.

BY THEOPHILUS PARVIN, M.D.

In Dr. Lusk's work on Midwifery, 1882, the following passage is found: Although not generally recommended, it is always my custom to remove the forceps as soon as the chin can be reached by the index finger introduced into the rectum. He further adds, the extrusion of the head, if it does not occur spontaneously, can then be easily effected, and the blades of the forceps, though of no great thickness, still add something to the distention of the vulva.

Dr. Landis, in his little volume, *How to use the Forceps*, published in 1880, remarks: "There are some who recommend that the forceps should be removed when the perineum has become greatly distended, for fear of laceration." He does not, however, approve the practice if the operator be intelligent and expert in the use of the forceps.

The practice of removing the forceps before the delivery of the head is more than sixty years old; it almost certainly originated with Madame Lachapelle. Baudelocque had taught that the instrument was not to be removed until the parietal protuberances had escaped the vulval orifice, and the distinguished *accoucheuse* just named, criticising this method, observes: "Did he believe that one hand could hold the perineum while the other used the instrument? In following his direction rupture of this part is inevitable, for the forceps increases the volume of the head, causes wider opening of the vulva, hastens the escape of the head, makes the distention greater and more sudden. To say that one hand suffices to make the extraction, is that not saying a slight effort would deliver the head? Very well, this slight effort I trust to the mother. When the head is once out of the bony parts, it does not go back; I gently remove the branches of the forceps and disarticulate them. I withdraw them by a gradual inclination, for often a somewhat sudden removal causes expulsion of the head. The forceps removed, the head dilates the parts very soon; the distention is more gradual, and I can give all my attention, direct all my forces, to preventing rupture of the perineum. If necessary I have the patient to bear down, but the head at the vulva by the tenesmus it excites causes her to do this."

American obstetric writers generally have failed to indorse this practice. I believe it is not mentioned by Dewees, Meigs, Miller, or Bedford. Warrington, in his *Obstetric Catechism*, gave the following questions and answers relating to the matter:

Should you be careful to support the perineum in delivery by the forceps? This should be regarded as an important object of attention.

Is it proper for you to remove the forceps as soon as the head escapes through the inferior strait? This is a good general rule.

Dr. Byford, in his well-known work, *Theory and Practice of Obstetrics*, remarks: "Sometimes, when the obstacle to expulsion consists in narrowness of the inferior strait, as soon as this obstacle is overcome and the head is advancing under good, strong pains, we remove the instrument before it emerges from the vulva."

Neither of the quotations just given makes Madame Lachapelle's practice an absolute rule.

And now let us turn to the great American master of obstetrics, the late Hugh L. Hodge, and see how strongly he condemns the practice, though he erroneously attributed it to Velpeau, who in fact only gave it partial approval. Referring to injuries of the perineum resulting from the forceps, Dr. Hodge observes: "To avoid these dangers, it has been strongly recommended by Velpeau, after the parietal protuberances have passed the rami of the ischia and pubis, if the bearing-down efforts continue, to remove the forceps from the head while it is still in the vagina. It is possible that such a movement may be occasionally necessary, but certainly this practice can seldom be proper, for, as already observed, the liability to injury of the perineum is not enhanced by the presence of the blades; their removal also deprives the practitioner of power to render any further assistance, and may even necessitate a re-application; and, moreover, this removal, under the circumstances of a rigid perineum, is not a safe operation for the tissues of the child, for it should be remembered that, under the degree of pressure to which the head is necessarily subjected by the forceps, the skin of the scalp and face of the child project into the fenestræ almost like a button. Hence, even if great care be employed and a slight rotatory motion be given, there might be great danger of inflicting injury upon these tissues while removing the blade. The best rule, therefore, is, that when the forceps are applied to allow it to remain until the head

be fairly delivered, when its removal, of course, is very easily effected."

Pinard, in his elaborate article upon the forceps (*Dictionnaire Encyclopediques des Sciences Medicales*), takes issue with the teaching of Lachapelle, saying "the course followed and recommended by her, seducing in appearance, in reality offers more inconveniences than advantages; not because, as has been objected, the operation appears to the family incomplete if not a failure, but because in some cases, uterine contraction and expulsive effort failing, a re-application of the instrument is necessary, and especially because a contraction occurring while the operator is occupied disarticulating and removing the blades may cause the sudden escape of the head and thus produce the rent we wish to avoid. Finally, to conclude, one ought not to disarticulate the instrument until the head has escaped the maternal parts, except it has been seized in an irregular mode."

It is remarkable that while some remove, others advise the use of the forceps for saving the perineum from injury; both Barnes and Kleinwächter refer to preventing by the forceps perineal tears.

In Spiegelberg's directions for using the forceps (*Lehrbuch der Geburtshülfe*), the statement is plainly made that removal of the instrument for the protection of the perineum is not advisable: "If haste is needed it can not be done, and if there be sufficient time the perineum can be protected in the manner previously given. On the other hand, it is very unpleasant to the young obstetrician to leave the operation seemingly incomplete, and especially so if, after removing the instrument, the head is not soon born."

That the forceps improperly used may cause perineal tears is not doubtful; the impropriety may be in the too rapid delivery or in the wrong direction given the handles, letting the ends of the blades depart from the fetal head so that they plow the posterior wall of the vagina, and then unnecessarily stretch the vulval opening; the blades ought to be so closely applied to the

head that the latter is a protection of the vagina and of the vulval orifice from direct injury.

But what power is substituted for that of the forceps by those who advocate the removal of the instrument before the head is delivered? According to Lachapelle, the voluntary efforts of the patient. But these may fail in strength, or may be quite absent.

According to others, the use of the fingers in the rectum. This practice originated with Smellie, though he did not suggest it as a means of protecting the perineum from injury. Objections have been made to it. Thus it has been justly spoken of as repulsive both to the practitioner and to the patient; there is danger of injury to the rectum by the fingers, and Matthews Duncan refers to a case where he believes a recto-vaginal fistula was thus caused. My own little experience in the method makes me believe that the fingers in the rectum are very likely to increase the voluntary expulsive efforts, efforts which, as they may cause the too early or too rapid expulsion of the head, we desire to moderate or suspend.

The forceps furnishes the best means to delay the delivery of the head until the perineum is sufficiently dilated, and to direct the head in the axis of the vulval opening when delivery is made.

If the Lachapelle practice prevails, what will become of the different sorts of vest-pocket forceps which American ingenuity has given us within the last few years? True, an American obstetrician, Dr. Reamy, at the Chicago meeting of the American Medical Association, holding one of these beautiful little instruments in his hand, said it was a mere toy, very much as Spiegleberg has spoken of Mattei's leniceps—*leniter*, instead of *fortiter capiens*—as a piece of play-work; nevertheless, if one of these instruments can not be used when the head is at the vulval orifice, what earthly use can be found for it? Its only opportunity is rudely, rashly taken away. Besides, if the use of these small instruments is only continued, a few years may see their number greatly multiplied, making obstetric fame and add-

ing to the profits of instrument-makers: this American industry ought to be protected instead of crushed.

But, returning from this sad digression, the changes in the diameters of the fetal head made by the forceps are yet to be fully studied, and that study bears some relation to the question being discussed. The most recent investigation is probably that of Budin. In his monograph, *De la Tete du Fœtus au point de vue de l'Obstetrique*, he observes that his experiments are too few to give positive conclusions; nevertheless that they prove, as those of Petrequin, Delore, and Joulin, that if the head is compressed in any direction its opposite diameters increase, and they especially give prominence to the modifications of the sub-occipital diameter.

In a forceps delivery, supposing the head to be seized, as it ought always to be if possible, by its biparietal diameter, while that diameter is lessened through the compression of the instrument the sub-occipital diameters are increased; practically, then, the forceps does not so lessen the size of the fetal head as thus in any wise to contribute to the safety of the perineum, and the argument for not removing the instrument until the head is born rests upon other grounds, which have already been given. Much remains to be determined both by scientific and clinical investigation. Nevertheless, the weight of obstetric authority is, I believe, against the adoption of the practice of Lachapelle; and so too, I also believe, is the practice of the majority of those who use the forceps.

INDIANAPOLIS, IND.

FOREIGN CORRESPONDENCE.

My Dear Yandell:

LONDON, Jan. 15, 1883.

The great event of this month has been the First "Bradshawe" lecture at the College of Surgeons, when Sir James Paget as usual charmed his vast audience with his eloquence, albeit the matter of the lecture was somewhat disappointing.

He took for his subject "Some rare and new Diseases," and under this head dealt with the peculiar joint disease discovered by Charcot, in association with locomotor ataxy, and also with the various kinds of gouty phlebitis which seem of late to have become common. This disease of the veins he decidedly thinks runs in families, and he mentions instances in which the males of a family have suffered from crural phlebitis and the females from phlegmasia dolens. In conclusion he called attention to the admirable collection of pathological specimens that had been gathered together in the College of Surgeons' Museum, and urged the importance of contributing specimens to it in order that it might become the center for the study of pathology. The entire lecture has been reported in several of the daily papers, and among the audience were a large number of distinguished non-medical visitors.

Mr. Alder Smith contributes to the journal of the association the report of a very extensive outbreak of ringworm of the head in a school, eighty-five out of ninety-two children being affected. The infected children were examined and all the diseased patches marked by cutting the hair from and half an inch round them; then all small and recent places were blistered with glacial acetic acid, containing four grains to the ounce of corrosive sublimate. The large patches which had existed some time were not blistered. The heads were then well washed, and the ointment ordered to be rubbed in, morning and evening, while the head was washed twice a week.

In three months twenty-six boys and twenty-three girls were cured. Oleate of mercury was then used for some of the chronic cases, and that not answering in all, the remainder were treated with blistering by croton oil, which caused the few remaining hair stumps to loosen, and the cure was completed.

Dr. Sanctuary of Hayde, Cornwall, records three very successful cases of sponge-grafting. In the first case, a boy had tied a piece of cotton three or four times around his penis, and the urethra had been laid open by ulceration. The other two cases were injuries to fingers, with extensive destruction of skin. The

sponges used were the finest grained Turkey. They were boiled in a weak solution of hydrochloric acid for some hours, and then steeped for half a day in a strongly alkaline solution of creasote; before application they were rinsed in hot water and cut into thin slices. The wounds were syringed with the same antiseptic solution, in which also the lint and gutta-percha were dipped. A single layer of each material was applied in the following order, sponge, gutta-percha, lint, and the whole was covered with a broad strip of India-rubber plaster, applied so as to secure firm pressure.

Dr. James Ferguson, of Glasgow, gives his experience of sponge-grafting, which is not so favorable. He finds, rather, the application of sponge to an unhealthy skin wound starts a healthy healing action, and that it is then better to remove the sponge, which causes some pain and bleeding, and that the wound will afterward heal quickly with any simple dressing.

Dr. Percy Boulton, of the Samaritan Hospital, describes the operation of tracheloraphy as practiced by him. He pares each side of the rent for a quarter of an inch, removing any cicatricial tissue, especially at the angle or fork of the fissure, and stitches these flaps together with silver wire. In order to do this, when the uterine ligaments are lax, the cervix should be drawn down outside the vulva. Chloroform is not given, and there is little pain, the uterine tissue bleeds freely, but the bleeding ceases when the flaps are brought together. The stitches must go deeply through the uterine flap, and the needle threaded afterward, drawn back, and the wire twisted with a twister. The operation is more easily performed through the short Ferguson speculum than the duck-bill. The local after-treatment consists in keeping the vagina clean by syringing daily, and the sutures are removed on the ninth day.

From St. Mary's Hospital Mr. Pepper reports a case in which he has successfully operated for vesico-vaginal fistula, after the patient had undergone twenty-two previous operations for same complaint at the hands of other surgeons. Immediately after the operation, a sigmoid catheter (to the end of which an India-

rubber tube was attached to conduct the urine into a vessel containing carbolic water) was placed in the bladder. Opium was given freely and a liquid diet ordered, thus guarding against the contraction of the rectum, a frequent source of failure.

From the Booth Hospital, Lancashire, Dr. Walker reports a most curious case of retention of urine, followed by spontaneous rupture of the bladder, and death. Patient was a most temperate man, had not had venereal disease or sustained any injury. He awoke suddenly in the night, wanting to pass urine, and complaining of violent pain over the privates. A catheter was passed, but only blood was drawn off. He died three days after of peritonitis, and at the necropsy a rupture was found two inches in length in the anterior wall of the bladder, commencing an inch from the neck and extending to two inches from its summit. There was no external evidence of injury to the abdomen.

Dr. Andrew Clark is to be president of the Clinical Society for the ensuing year, Dr. Symes Thompson president of the Harveian, and Dr. Gervis president of the Obstetrical Society.

Dr. Sturges, of the Westminster Hospital, makes an important communication to the *British Medical Journal* of the 23d ultimo, on some special characters of the present epidemic of typhoid fever in London. These points are, the high rate of mortality, the liability to relapse, the prolonged duration of the fever and of the convalescence, the proportion of patients whose recovery was delayed or prevented by intercurrent inflammations, and, most of all, the insidious and misleading nature of the early symptoms. He enumerates twenty-one consecutive cases of typhoid admitted into hospital during the past three months; all the patients were young and healthy, and four were children. In the twenty-one cases there were five deaths; six examples of relapse, two being fatal; five not relapsing, had very slow recovery, three of them being still in hospital, barely convalescent after many weeks' illness. Only six out of the twenty-one, or, excluding two children, in view of the special characters of typhoid in early life, only four adults out of nineteen persons

made a good and proper recovery, in the sense of being apyrexial and on the way to convalescence toward the end of the fourth week. In one of the two fatal relapses, the relapse occurred as late as the fourteenth day, when the patient was up and about the ward. In another case the patient became unconscious, evacuations were passed in the bed, and she appeared to be dying. Recovering from this attack, she had two distinct repetitions of the fever, each with fresh spots and renewed diarrhea. Happily this severe epidemic, which points to some terrible sanitary defect, appears to be abating. I regret much that space does not admit of giving a more detailed synopsis of Dr. Sturges's extremely interesting paper.

Mr. W. E. Spencer gives an account of a case of cystocele, in which premature labor had to be induced. During convalescence the prolapse returned, and operative measures were resorted to. The patient was etherized and placed in the lithotomy position. The bladder was then distended with water, which brought the prolapsed part well within view and reach. A duck-bill speculum retracted the perineum. Then, sitting in front of the patient, Mr. Spencer dissected an ellipsoidal piece of mucous membrane two inches long and one inch broad from the anterior vaginal wall. One small vessel was tied. The raw edges were brought together with seven sutures of Chinese silk. The catheter was passed twice a day until the fifth day, when the patient micturated in the knee-elbow position. Vomiting was rather troublesome for the first twenty-four hours. The operation succeeded perfectly, and the patient has since been free from all discomfort.

Dr. Macleod, of the East Riding of Yorkshire Lunatic Asylum, calls attention to a novel method of committing suicide. The patient refused obstinately to take food, and required feeding with the stomach-pump. On opening his mouth with a Newton's gag one evening, he was found to have pushed well back into his pharynx a carefully-made cone of flannel. He was interrupted while pushing it down, but there is no doubt if he had pushed it an inch further he would have occluded the glottis.

Mr. Evans, of Swansea, records a case in which he amputated the forearm of a woman eighty-two years of age, who was suffering from an enormous cancerous tumor of the hand. The wound healed partly by first intention, and in thirteen days the remainder healed by granulation. She recovered without a bad symptom.

Mr. Dalby, of St. George's Hospital, and Dr. Carimichael, of Edinburgh, call attention to the danger of punishing children by striking them on the head or boxing the ears. If an injury follows a blow on the ear, it may be of three kinds: (1) The hearing may be immediately damaged without the membrane being ruptured, and without any inflammation being set up within the tympanum; (2) the tympanic membrane may be at once ruptured, and the appearance is usually that of a long vertical slit on one side of the handle of the malleus; (3) without the membrane being broken, acute inflammation may be excited in the tympanic cavity. Sea-water, according to Mr. Dalby, has a peculiar irritating effect upon the lining membrane of the tympanum, and especially when the perforation is of small size so that the fluid which has once entered can not freely escape.

Mr. Sell, of the Surrey County Hospital, gives the notes of a case in which a lacerated wound of the back of the head was followed by tetanus. During the first ten days the patient, who was treated with calabar bean, was well under its influence, as judged by the contracted pupils and cardiac oppression. Later the drug lost its power, and toward the end of the case a remarkable toleration both of calabar bean and chloral hydrate was established.

In a case of tetanus after laceration and gangrene of the ear, the notes of which are sent from the Portsmouth Hospital by Dr. Lloyd Owen, the patient was treated successfully with bromide of potassium and chloral hydrate. In both these cases morphia was pretty freely administered hypodermically, and without bad results, although opium has been said by many authorities to increase the congestion of the spinal cord.

After a most severe illness Mr. Fawcett, the Postmaster-General, has now fairly entered on convalescence. He was first

attacked by diphtheria, and subsequently well-marked typhoid symptoms showed themselves and persisted with great severity. When making favorable progress he had hemorrhage from the mouth, which recurred several times and caused painful difficulty in breathing. Articular rheumatism next manifested itself, but did not persist, and he is now believed to be quite out of danger. He still has a frequent and irritable pulse, and troublesome sleeplessness.

Several further cases of prescribing by druggists have lately engaged the attention of coroners' juries, and it must be acknowledged that if on the one hand it is considered desirable to restrict the practice of the employment of unqualified assistants by medical men, it will certainly be right to protect the public and the profession against the dangerous practice of prescribing by chemists. This subject ought to be dealt with at once by the General Medical Council.

A death took place recently at the Liverpool Eye and Ear Infirmary, during the administration of dichloride of ethidene. The heart had been previously examined, and was believed to be healthy. The dichloride of ethidene was given on a flannel inhaler, and the patient came under its influence quickly. Suddenly the pulse became feeble and then stopped. The patient's head was lowered, his tongue drawn well forward and artificial respiration commenced without delay, while nitrite of amyl was applied to his nostrils, but though the respiration was carried on for half an hour the patient did not rally. There is a record of this anesthetic having been administered nearly two hundred times. The absence of struggling as patients come under its influence, its pleasant smell, and the very little sickness following its use, caused ethidene to be regarded as a specially suitable anesthetic for operations on the eye.

An outbreak of typhoid fever at Evesham has been traced to lemonade supplied to a large number of persons assembled to witness a regatta. The water used for this lemonade was drawn from a well found to be seriously contaminated with organic matter.

Reviews.

Microscopical Morphology of the Animal Body in Health and Disease. By C. HEITZMANN, M.D., late Lecturer on Morbid Anatomy at the University of Vienna, Austria. With three hundred and eighty original engravings. New York: J. H. Vail & Co. 1883. 8vo, pp. xix and 849.

It is more than forty years since Schwann, representing the scientific evolution of his day in this behalf, proclaimed the cell-doctrine touching vegetation. A few years later Schleiden announced a modification and an amplification of Schwann's views. About thirty years ago biologists began to see, as through a glass darkly, that cells had to do with animal life as well as vegetable development, and in 1857 Virchow published the first connected exposition of these ideas under the title of Cellular Pathology. So clear, so satisfactory, apparently so true and complete were these teachings of Virchow that the great body of biologists since that day have been occupied with an enlargement of the doctrine and its adaptation to the explanation of the phenomena of life, normal and abnormal.

The cell was defined to be a homogeneous bit of living matter, and was held to be the unit of vitality. Huxley has made the world outside the profession of medicine luminous with the knowledge of life as manifested through protoplasm; the central idea in all these years being that the cell was a lump of undifferentiated protoplasm, and was a perfect animal within itself, capable of absorbing nutriment, of development, and of reproducing its kind. A single cell was the simplest form of animal life, but the most complicated animal structure was nothing more than an aggregation of cells, with a division of labor and function and a vast extension of form in certain directions.

While the foregoing outline is true as to the faith of the great body of biologists, there was a small, intelligent, and active minority of observers who had long been delving into the constitution of the cell itself, and had seen things therein that they held to be incompatible with the claim that the protoplasm of the cell was without structure and homogeneous. Beale, some years ago, imperfectly outlined this idea in the names he gave to the cell-contents, calling them "germinal matter" and "formed material." In 1873 Dr. Heitzmann, the author of the work under review, published in Vienna, where he then lived, "The Arrangement of the Living Matter in Protoplasm," and this essay constitutes the opening article in the third section of his book, and to it he has now appended a statement covering his observations in the nine years that have since elapsed, all of which, he affirms, have afforded additional evidence of the correctness of his conclusions at that time published. Dr. Heitzmann does not claim to have been the first to observe structure in the protoplasmic body; on the contrary, he announces that "the reticulum in 'protoplasm' was seen and depicted by Nasmyth" in 1839, and by others at sundry times since.

The doctrine of the book touching cells is succinctly this: The author, following Elsberg, calls the cell a "plastid." This plastid is composed of granules of living matter connected with each other by filaments of the same matter, constituting a reticulum, the meshes of which are filled with a fluid substance that has resulted from the living matter, and is now the medium of support of this reticulum and the bearer of its pabulum, but is not itself living matter. These granules are apparently structureless under the best powers of the microscope, and, as they manifest independent motion, must for the present be regarded as the primal element of vital activity, the real units of organic life.

An amoeba has long been the representative single-cell animal, and is still regarded as the primitive animal organization, and under the cell-doctrine the amoeba was a distinct animal,

the lowest and simplest. All higher animals were a number, small or large, of amœbæ differentiated into tissues and structures, and in functions as well; while under the bioplasson doctrine—as the new doctrine is entitled—the amœba, though still a simple animal, is nevertheless an organized being, having the granules of living matter as its structural elements; and the higher animals, instead of being such a community of countless amœbæ, are in fact nothing more than an immensely-expanded and highly-differentiated amœba. Under this teaching, therefore, every distinct animal existence is one cell (plastid) whether this animal be an amœba, an elephant, or a man. That the author's comprehensive statement of this conclusion may be seen in this connection, a quotation is made from page 36:

The analysis of a single protoplasmic lump is of the greatest importance, inasmuch as such a lump is the simplest animal organism, upon the plan of which are built up all, even the most complicated, organisms. It will be demonstrated further on that the human body is constructed on the plan of an amœba, and the comparison will be carried out in all details. Man is a complex amœba, with permanent protrusions, the extremities, with a wonderfully complicated division of the labor of groups of the living matter. Man, *in toto*, is an individual, as is the amœba, and in both isolated lumps of living matter float about—in the one case in vacuoles, in the other in blood- and lymph-vessels.

To maintain this position Dr. Heitzmann does not rely wholly upon himself, but introduces, with more or less fullness, the detailed observations of twenty other modern American investigators in this field of scientific research, inclusive of the paper upon "Bioplasson," by Dr. Elsberg, of New York, submitted to the American Medical Association in 1875, and one on "The Origin of Blood Corpuscles," by Dr. Johnstone, of Danville, Ky., published in the Archives of Medicine in 1881.

The author begins his book by presenting his methods of preparing and mounting specimens and working with the microscope; and then, with the assistance of his twenty collaborators, follows this with a description of the "General Properties

of Living Matter," "The Arrangement of Living Matter in 'Protoplasm,'" "The Phases of Development of Living Matter," "The Structure and Origin of Colored Blood Corpuscles" and the "Tissues in General." These sections of the book occupy one hundred and forty-two pages, and are succeeded by a detailed description of the origin, development, and decline of the several tissues that constitute the human frame, beginning, quite appropriately, with the connective tissue, and ending with the degeneration of the female genital tract. Not only is the normal structure, the issue of physiological activity, set forth with particularity, but abnormal structure, the result of pathological activity, has special attention, the two conditions being treated of usually directly in connection as the best means of pointing out perspicuously the difference in progress and termination of the two vital processes.

This brief exposition of the contents of Dr. Heitzmann's work will suffice to indicate that in effect it seeks to demonstrate that the popular scientific view of the structure and mission of the cell are erroneous; that instead of the cell being the beginning, the unit of life, it is a highly-organized being, and that its nature and development being fully comprehended necessarily does away with the cell-doctrine both in physiology and pathology, and there is in its stead a new theory offered, to which is given the title of the Bioplasson Doctrine. No outline of the evidence upon which this theory rests can be given in the space and time allotted to this review, but the reader will find in the volume itself a clear and comprehensive presentation of the entire subject, and in such wise that he will have no difficulty in understanding the author's position, whether he accepts the author's conclusions or not.

There are two classes of biologists, at least, who will not embrace the new doctrine with alacrity and joy: one is the veteran, staid workers who have so long done service in the field where the cell-doctrine was dominant and deemed all-sufficient, that they are intolerant of innovations in this domain, and will recognize nothing in the new views but the wild imaginings

of ambitious unripeness founded upon the fancied things seen through the high powers of the microscope by insufficiently trained observers more anxious to detect and report novelties than to demonstrate truth; and the other class is composed of fresh, active laborers in the same department who have not met with equal success, or have allowed their judgments to be warped by prejudice born of rivalry or some personal pique.

The first class have a fair foundation for their incredulity in a certain flavor of egotism that runs through the volume, the author apparently assuming that he is absolutely familiar with all that has been done by others; that he and his associates, who have progressed far beyond the old limits of biology, have approximated perfection and are the only parties entitled to consideration. *The book affords many sentences which illustrate the author's vain self-sufficiency, and a quotation from its preface will suffice to exhibit his arrogance toward the fathers in microscopic histology, viz:

In view of these facts I can wait patiently the approval of scientists abroad. A doctrine which is accepted by good observers in America can not be lost, but will develop independently of European microscopists, who to a great extent are prejudiced by the teachings of the older masters.

Again have facts made it evident that the United States of America are ahead wherever new ideas of practical importance are to be acknowledged. I have received in New York much encouragement from my students and co-workers. I have also been magnanimously supported by a friend, who is not a medical man, but a prince in character and wealth, and who surpasses most European princes in that he will not allow me to inscribe his name on the dedicatory page.

The second class of recalcitrants can also find many salient points in the volume upon which to hang their objections, and those of them who are at all cynical with a mercenary leaning can quote several passages where the author refers to the completeness of his New York laboratory, the number of his pupils, the value of his instruction, and the distinction to which his co-

workers have attained that may, without violence, be construed to be bids for business.

Still another feature of his writing, tantamount to a claim of infallibility by the author, has a tendency to make a sensitive critic feel as if the nap of his good nature was being stroked the wrong way. He asserts that pus corpuscles contain internal evidence of the good or bad constitutional condition of the person in whom they originate. "This fact has been made use of in hundreds of cases when pus corpuscles, mainly in urine, were brought by different physicians to my laboratory for examination, for telling whether the pus belongs to a good or a bad constitution, of course without any knowledge of the patients themselves. I was right in every instance; not one mistake has occurred." (Page 59.) If the doctor had only made one mistake in these hundreds of cases it would have permitted of the belief that the inspector was mortal and akin to common, frail humanity.

And again, our author has so successfully cultivated the knowledge of the appearance of the blood disks that he holds that marriages should be arranged, not in heaven, as the poets have it, but in the laboratory, with the assistance of the microscope peering into the blood. To illustrate: A young physician, last year, appealed to Dr. H. to know whether he should marry his cousin. The doctor examined his blood, and told him he was a nervous man, passing sleepless nights; and because of the relation of consanguinity his fair cousin was probably like him in constitutional tendencies, and therefore "marriage was not advisable for fear the offspring might degenerate. So great was his faith in my assertions that he gave up the idea of marrying his cousin, offering her the last chance, viz. the examination of her blood. This beautiful girl came to my laboratory, and, very much to my surprise, I found upon examination of her blood a first-class constitution. The next day I told the gentleman, 'You had better marry her.'" (Page 61.)

Now if Dr. H. could, through some vacuole in the bioplasmon doctrine, so instruct his young and confiding medical friend

in the mysterious process of generation that the offspring of this union shall develop blood after the pattern of the mother rather than after that of the father, it would be a consummation worthy of the purely scientific morphology on which the marriage was arranged.

Waiving the question of their literal accuracy, these are blemishes of both matter and manner which one may fairly enough treat with a bantering levity; but they only mar the book in minor parts, do not invalidate its general scientific accuracy, nor touch the importance of the great problems it unfolds and solves through the persevering industry of the author corroborated by the labors of independent collaborators of unimpeachable skill in discerning and of acknowledged purity of taste and style in communicating. The author's scientific teachings are entitled to consideration on their merits, and the text is so explicit and full, and the illustrations—all drawn by himself—so fresh and satisfying, that unfriendly critics must do something more than sneer and indulge in crotchety raillery before they can convince intelligent readers that the prophet of the bioplasm theory has said nothing new and true, and that the volume before us is the romance of an enthusiast who creates and colors what he sees and draws by the aid of a Tolles one-twelfth-inch immersion lens peering into plastids magnified twelve hundred diameters and tinted with chromic acid, nitrate of silver, and chloride of gold.

The volume is admirably printed, and the three hundred and eighty illustrations are perhaps the best of their kind before the public. The absence of an index is a serious inconvenience to busy people seeking to consult the work on special subjects.

J. F. H.

Labor among Primitive Peoples: showing the development of the Obstetric Science of to-day from the natural and instinctive customs of all races, civilized and savage, past and present. By GEO. J. ENGLEMAN, A. M., M. D., Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College, Master in Obstetrics of the University of Vienna; Fellow of the American Gynecological Society, of the London Obstetric Society, etc., etc. Fifty-six illustrations. St. Louis: J. H. Chambers & Co. 1882. 8vo, pp. 203.

This rehearsal of curious things, ancient and modern, pertaining to child-bearing is a story of five chapters, all of which have been heretofore published either in the transactions of some society or in medical journals, each as an independent communication, and are republished here in book-form without an effort to reconstruct them into a smooth-running monograph on the subject to which they relate, which, the author informs us, is ethnological rather than purely medical. The author forestalls any disposition one might have to an unfavorable consideration of the order of his matter by declaring in his preface that "in the arrangement of this volume circumstances necessitated the faulty order, which the reader *can not overlook*, yet will, I trust, *generously pardon*."

Chapter I treats of posture in labor, and is divided into two parts; the first concerning position among peoples governed by instinct, not by modern obstetric fashion, and the second discussing the position during labor of women in the enlightened nations of to-day. This chapter ends with five italicized conclusions declaring the author's convictions of the proper position of women in all stages of labor. Much of this concluding matter is good.

The other chapters relate to the management of the third stage of labor, savage and civilized; labor proper; massage and expression; and labor-scenes among the 'yellow, black, and red races.

Following the custom of our clerical brethren, the author makes use of the facts he has gathered and presented as a

lesson for our improvement in the management of our puerperal women, insisting, with much propriety, that the instinctive proceedings of uncultured humans in this behalf contain much that we may follow with benefit in the present day, even though culture and fashion have made a lady of our time quite another animal from the wild women who do all domestic labor among the savages of all times and places.

If an exception were to be taken to Dr. Englemann's teachings in these final lessons, it would be that he does not seem to regard the chasm between the savage and modern civilized women as wide as it really is, and yet suggests too much of the artificial and meddlesome in fashionable midwifery. J. F. H.

On Asthma: Its Pathology and Treatment. By HENRY HYDE SALTER, M.D., F.R.S., Fellow of the Royal College of Physicians, Physician to Charing Cross Hospital, and Lecturer on the Principles and Practice of Medicine at the Charing Cross Hospital Medical School. First American from the last English edition. New York: William Wood & Co. 1882. 8vo, pp. 284.

The legend, "First American from the last English edition," on the title-page of this volume is a misstatement of facts liable to mislead an unsophisticated searcher after fresh thoughts in new books. Such a searcher examining this title would reasonably infer that the last English edition was recently out and quickly seized and reproduced by the New York publishers for early enlightenment of American readers, while in truth the searcher might be toying, as he searched, with a fairly-developed moustache, and yet have been born after the last English edition of Salter was published.

Dr. Salter's first edition was published in 1860, and an American reprint of it is within eyeshot at this writing bearing the imprint of Blanchard & Lea; so the claim that the book under notice is the first American edition is an error. Dr. Salter's second and last edition was not long in following the first, and

was and is a superb work, now become classical and worthy of a place in every good library for physicians' use.

The present issue is the September, 1882, number of Wood's Library of Standard Medical Authors, and the publishers have done well by their patrons in giving them this excellent treatise in the acceptable style of this series of their publications; and for the reason of the substantial merits of the work, and the value of it as a possession, there is no legitimate excuse seen at this distance for what has the appearance of an effort by the publishers to so arrange the preliminary pages that the hurried book-purchaser will buy under the impression that he is obtaining something freshly written.

J. F. H.

The Hospital Treatment of Diseases of the Heart and Lungs, as Exemplified in the Hospitals of New York City. By CHARLES H. GOODWIN, M.D. New York: C. H. Goodwin, M.D. 1883. 1 vol. Pp. 195.

This modest little volume is without any pretension to originality excepting the design. The book is just what it claims to be, has been carefully prepared, and no doubt accurately represents the treatment of cardiac and pulmonary diseases in the nine hospitals of New York. The book contains "over three hundred and fifty formulæ." But when these are studied they are found to be just about what any well-informed physician would be likely to prescribe under like circumstances. The plans of treatment in the different diseases are those which the common text-books recommend. No new facts in therapeutics are recorded, nor are any new principles developed to explain already known facts. Without finding the least fault with the compiler of this book, who has made the most of his material, it must be said the material is not worthy of a book.

O.

Clinic of the Month.

SECONDARY PUERPERAL HEMORRHAGE.—At a late meeting of the New York Academy of Medicine Dr. Paul F. Mundé read a paper on this interesting subject, which we copy from the Medical Record:

The majority of obstetric authorities scarcely referred to the possibility that alarming uterine hemorrhage might occur as late as several weeks after confinement, and only the standard works of Barker, Winckel, Playfair, Spiegelberg, and Barnes devoted a fair amount of space to this accident. In September, 1880, at the annual meeting of the American Gynecological Society, Dr. Theophilus Parvin read an elaborate essay on this subject. The fact that so little had been written concerning it, and also the fact that the accident was comparatively rare and grave, were sufficient reasons for reporting the following case, which presented certain peculiarities not referred to by Dr. Parvin.

On August 2, 1882, he saw, in consultation with Dr. S. Kohn, a patient who was in great danger from uterine hemorrhage. She was twenty-five years of age, the mother of three children, and had always been healthy. She was taken in labor on July 16th, with her fourth child. Labor progressed slowly, and after it had lasted twenty-one hours, the head almost resting upon the perineum, and no advance being made, an attempt made to deliver with the forceps failed. The cranium was then opened and the forceps again used, but they refused to hold. The head was then delivered with the cephalotribe. The cause of the difficulty was hydrocephalus. Hemorrhage was quite profuse, but soon ceased. The placenta was adherent to the right side of the fundus and required complete separation by the hand, special care being taken not to leave any fragments behind. Two fluid drams of ergot were administered by the mouth and all hemorrhage ceased. On examination it was found that the anterior lip of cervix was quite badly torn. The patient appeared to be doing well for the next six days, although the temperature varied from 101° to 102° F., and the pulse averaged 120. The lochia were fetid from the

third day on. Uterine injections washed away numerous small shreds and coaguli until the lochia lost their offensive odor. On July 28th the lochia again became offensive, the discharge diminished in quantity, was serous, and contained a reddish-black fluid. On the sixteenth day after labor a profuse hemorrhage began, and when Dr. K—— saw the patient, four hours and a half afterward, she was almost exsanguinated. The bleeding was arrested for a moment by intra-uterine injections of hot water, but it soon recommenced. It was again checked by injections of hot water and tamponading the vagina. When Dr. Mundé saw the patient he found her with low head, perfectly pallid face, hands and feet cold and clammy, pulse 120, very weak, and consciousness unimpaired. The fundus of the uterus was on a level with the umbilicus, irregular in outline, the right horn extending several inches above the navel, and there was moderate tenderness. After preparing fresh carbolized tampons, procuring a few ounces of the pure tincture of iodine, and a fountain syringe filled with hot carbolized water, he rapidly removed the tampons, and at once passed his hand into the dilated vagina and through it into the distended uterine cavity, which he found filled with soft coagula, exceedingly offensive, dark colored, and largely mixed with shreds of decidua. The internal surface of the uterus was soft, pulpy, and the mucous membrane apparently very much thickened. Great caution was necessary, in order to avoid injuring, perhaps perforating, the pulpy wall of the organ. After emptying the uterine cavity, he introduced a long metallic tube, and washed it out with carbolized water from the fountain syringe, the water being as hot as the hand could bear. The patient did not complain of the heat. He then introduced a large cylindrical speculum through the tube of a long cervical syringe, and then injected half an ounce of pure tincture of iodine into the uterine cavity, using some force in order to insure the thorough distribution of the iodine. Cotton tampons joined with a cord were again applied, merely as a safeguard against further hemorrhage in case the iodine failed to check it, and he directed that they be removed in six hours. The injection of iodine gave no pain whatever, nor was it followed by shock. Six hypodermics of brandy were given, and ten drops of aromatic spirits of ammonia, five drops of spirits of camphor, and a teaspoonful of brandy were ordered in ice-water every half hour. A hypodermic syringe full of Squibb's fluid extract of ergot was injected into the subcutaneous cellular tissue of the abdomen, and an ice-bag was placed over the uterus. A bottle of hot water was placed at the feet. Directions were left to inject

the uterine cavity very gently with tepid carbolized water after removing the tampons, for the purpose of preventing the decomposition of the coagula produced by the iodine.

On visiting her twenty-four hours later he learned that no further hemorrhage had occurred, and that the uterus had been washed out several times. There was hectic flush and a peculiar sweetish odor about the patient, which sustained the conviction already expressed that the patient was suffering from septic endometritis. Tepid injections of a one-sixth-per-cent solution of permanganate of potash were made into the uterus every three hours, more or less, according to the offensiveness of the discharge. Ten grains of salicylate of soda were to be administered every two hours, in case the temperature should rise above 102° F. and the stomach did not reject it. Stimulants as might be required. Nutritious enemata. Prognosis unfavorable. In the course of the subsequent treatment, intra-uterine injections of the sulphate of quinine (sulphate of quinine, one dram to the quart of water) were used at the direction of Dr. Kohn, and apparently with marked benefit. The offensive lochia continued several weeks after the hemorrhage. The patient recovered slowly, and at the end of five weeks convalescence was complete.

Dr. Mundé then reviewed several points of interest in the case reported.

1. The causes of secondary puerperal hemorrhage. Constitutional: hemophilia, mental emotion, functional disease of the liver, incautious use of stimulants, sudden assumption of the erect position. Local: irregular and inefficient contraction of the uterus, clots in the uterine cavity, portions of retained placenta or membranes, retroflexion of the uterus, laceration of the vagina or vulva, laceration or erosion of the cervix, inflammatory ulceration of the cervix, malignant disease of the cervix, pelvic cellulitis, inversion of the uterus, premature sexual intercourse, loaded rectum. To these he added distended urinary bladder. Besides these malarial poisoning was a well-recognized cause of secondary puerperal hemorrhage. General febrile disturbances were also causes of secondary metrorrhagia. Another cause, so far as he had been able to learn spoken of by Winckel only, was disease of the inner surface of the uterus, chiefly endometritis. Dr. Mundé believed that his case belonged to this class.

2. The date of hemorrhage after delivery. The time at which secondary hemorrhage is liable to occur varies greatly, according to the character of the labor, the care taken in the third stage, precautions employed during child-bed, and accidental circumstances.

Barker refers to instances as late as the fifth or sixth week after delivery, and Helfer speaks of one during the fourth week.

3. The significance of secondary hemorrhage depends partly on the amount of blood lost and escaping, and partly on the origin of the blood. Hemorrhage depending upon mere temporary atony of the uterus is less serious than if due to sloughing off of the placenta, uterine thrombi, or the bursting of a dilated vein. The occurrence of serious or fatal hemorrhage at a later date than the fourteenth day after delivery was certainly very rare. The evil consequences of protracted secondary hemorrhage were the debilitating effect upon the woman and subsequent uterine disease of some form or other.

4. The means employed to check hemorrhage. He recommends the method of injecting iodine through a cylindrical speculum, as a means of saving the vagina and vulva from inevitable contact with the fluid if the latter is simply injected into the uterus under the guidance of the finger. With reference to the application of the tampon after labor, it need scarcely be said that it should never be done unless the uterus was so contracted and constantly watched that no internal hemorrhage could take place. He applied the tampon temporarily as a possible safeguard against external hemorrhage until the patient had had time to rally a little, and with the positive understanding that the fundus uteri should be carefully watched until the tampon was removed. As a rule, it might be assumed that the same remedies and measures which are used to check primary uterine hemorrhage will be effectual in the second variety. For a protracted bloody lochial discharge, or a constant sanguineous oozing due to subinvolution, he had in a number of instances used successfully the pure tincture of iodine applied to the uterine cavity about twice a week on cotton-wrapped applicators.

Dr. Mundé concluded his paper by making reference to the means of preventing these hemorrhages, primary and secondary. The following rules were given for the management of the third stage of labor and the early puerperal state:

1. Always keep the hand on the fundus uteri from the moment the head appears at the vulva until the placenta is expelled.

2. Do not hasten the expulsion of the placenta too much.

3. Always watch the uterus with the hand, using gentle friction occasionally, for at least one hour.

4. Always give ergot by the mouth immediately after the birth of the child. If chloroform has been given, or if the labor has been

unusually tedious, give ergot hypodermically, injecting a syringe full of the fluid extract to the depth of one inch near the umbilicus.

5. If the uterus shows a reluctance to remain contracted, rub the fundus gently with a piece of ice, or insert a cone-shaped piece into the cavity.

6. Always make sure by palpation and percussion that the uterus contains no coaguli.

7. Apply the child to the breast early.

8. Apply an equably tight binder, and, if there be tendency to hemorrhage, a pad should be placed over the fundus to secure its steady compression.

9. If there be laceration of the cervix or vagina, future oozing may be checked by mild astringent injections, or, if need be, by applications through the speculum. Immediate suture for laceration of the cervix appeared to him to be rarely feasible.

10. Do not allow the lying-in woman to leave her bed before the tenth day.

11. See that the bladder is empty and is not interfering with uterine contraction.

12. See that the nozzle of the syringe is not introduced too far, and that too much force is not used in giving the customary cleansing injection.

Dr. W. M. Polk, on invitation, opened the discussion, and said that he had seen but one case of secondary puerperal hemorrhage, meaning thereby hemorrhage sufficiently profuse to produce marked exhaustion in the course of twenty-four hours, and in that instance it occurred fifteen days after confinement. He applied a tampon because the uterus was firmly contracted, not large; and besides, he watched the organ very closely. He had a misfortune with it, which he believed was worthy of being borne in mind. The tampon was wet with a solution of persulphate of iron in water, three parts of water and one of the liquid preparation of the iron. It remained in position about twelve hours, and after its removal he instructed the nurse to thoroughly syringe the vagina; but she neglected to do so, and the consequence was complete atresia of the vagina, which required a secondary operation for its relief.

Dr. Polk also referred to a second case, which occurred in the practice of one of his friends, in which the hemorrhage occurred on the fifth day after confinement, and followed an intra-uterine antiseptic injection given through an ordinary catheter. In that case hemorrhage was so profuse that death took place almost immediately.

He thought that the possibility of the occurrence of this accident should always be borne in mind in the usual habit of washing out the uterus with antiseptic solutions after confinement. Dr. Polk believed that the causes of this form of hemorrhage could be arranged under two heads: first, local; second, constitutional. His rule has been, when he had to deal even with milder degrees of septic inflammation of the endometrium, to be closely upon his guard against the occurrence of this accident. The tendency to improper contractions of the uterus in consequence of septic disease, and a failure to establish proper organization of the clot for the complete closure of the vessels, renders very trivial causes sufficient to produce hemorrhage. The conditions likely to interfere with the proper organization of the coaguli in the ends of the uterine sinuses are, unfortunately, very numerous. In the first place, all septic inflammations belonging to the uterus in the parturient state exert a marked influence in this direction. The other causes were chiefly constitutional, and were summed up under the head of cachectic states, such as malarial poisoning, or poisoning from any of the minerals, as mercury, lead, etc. He did not approve of the practice which formerly prevailed, of forcing the uterus back into the hollow of the sacrum by means of heavy compresses and bandages, for the reason that such mechanical pressure gave rise to congestion of the organ, and was liable, sooner or later, to be followed by hemorrhage. Dr. Polk also preferred hot water to cold. He had seen a good deal of prostration produced after prolonged use of cold, and he had not seen any ill effects follow the use of hot water. Water into which the hand could be placed and retained was not too hot for the uterus, and he thought this was a sufficient test for the temperature of the water. So far as immediate operations upon the cervix were concerned, he agreed with the author of the paper, that they were out of place. He thought the observations made by Dr. C. C. Lee had proved conclusively the correctness of this conclusion.

Dr. E. L. Partridge directed attention to some of the less severe cases than those which had been mentioned by Dr. Mundé and Dr. Polk. He thought that only one half of the question had been stated when it was said that secondary hemorrhage was due to retention of clots and portions of the secundines, etc., and that the real question was, What is the condition that allows this improper uterine contraction? He then proceeded to speak of the predisposing causes, both local and constitutional, which might give rise to secondary uterine hemorrhage. For example, a woman who suffered from such

symptoms as would naturally be attributed to disorders of the circulation, such as headaches due to anemia, attacks of syncope, etc., would be liable to the occurrence of hemorrhage after labor. With regard to local predisposing causes, he mentioned chronic uterine diseases of various kinds, chronic cellulitis, which led to an increase in the size of the organ due to the preponderance of fibrous structure which was liable to interfere with perfect contraction of the organ at the termination of labor. The only alarming case of secondary puerperal hemorrhage which he had seen occurred on the ninth day after labor. It occurred suddenly, and was found to be the result of an annular slough which involved the entire vaginal end of the cervix. The loss of blood was sufficiently profuse to seriously jeopardize the patient's life. The history of the labor was that of early rupture of the membranes. And with regard to early rupture of the membranes, he had found that the persistence of the hemorrhagic element in the lochial discharge was very likely to exist, and it might be sufficient afterward to produce what might be called hemorrhage. In such a case as that reported by Dr. Mundé he would not hesitate to use a tampon, but, generally speaking, he would not hasten to apply a tampon until he was convinced that all other methods for controlling the hemorrhage were futile, because he thought there was a liability to the absorption of septic material.

Dr. Partridge then made special reference to the importance of compressing the uterus for some time after the completion of labor, and for the purpose of preventing the occurrence of secondary hemorrhage.

Dr. H. T. Hanks concurred in nearly all the statements made by Dr. Mundé, and made reference to cases of undoubted malarial origin which had come under his observation. In one the hemorrhage occurred fourteen days after delivery. It was controlled by the use of a battery and injections of hot water. He agreed with Dr. Polk that hot water was the more easily obtained, and more agreeable to the patient, and more effectual than cold. It could be easily injected through Chamberlain's long glass tube, or a small gum-elastic catheter. He did not approve of the use of the tampon. He also thought it unnecessary to give a dram of ergot in all cases of labor. If there was any evidence of impending danger, certainly the ergot should be used, but if the patient was all right, why give something which produced uterine colic?

Dr. Mundé, in closing the discussion, said he did not concur with Dr. Polk with regard to the effect produced by the binder and pad. He thought their use was simply the application of the same principle

which was so frequently applied for the arrest of hemorrhage in any other part of the body. With regard to the use of heat or ice, he did not wish to be understood that he would use ice-water, but he would simply take a piece of ice and rub it over the fundus, or introduce a piece into the cavity of the uterus. It had been his experience that the patient complained more with regard to the use of hot water than the use of cold. Dr. Partridge's remarks were exceedingly proper with regard to the etiology of hemorrhage in certain cases, but it had not been his purpose to enter upon the subject of the etiology of uterine hemorrhages which were of a more chronic character. He wished to speak chiefly of the acute cases. The subject of protracted lochial oozing he thought had not been sufficiently elaborated. He believed that the condition was exceedingly common, and that a great deal could be done in the way of its prevention and cure. With regard to the use of the tampon, he did not wish to be understood as recommending its introduction after delivery of a full-grown child. It certainly was a risky practice, but in his case he preferred to take the risk rather than to allow the patient to lose another drop of blood. But it should be insisted upon that it be very carefully watched. He did not believe that it was always necessary to use ergot after delivery, but at the same time he thought the woman was a little more safe with than without it, and he did not believe that it did any harm.

Dr. Polk remarked that he did not mean to criticise the application of the binder and compress, but simply wished to speak of the custom of continuing it for a week or ten days after labor.

PROF. WEINLECHNER reports a case where injection of iodoform (one to ten of sulphuric ether) cured a case of sarcoma of the tonsil. Profs. Billroth and Albert had previously refused to perform an extirpation. Sixteen injections of two and a half to three drops of the above solution were given inside and fourteen outside. But before that Prof. Chiari had stated the nature of the tumor. On account of a hemorrhage the carotis corum. sinister was tied. Patient had dyspepsia, which disappeared after discontinuing the iodoform, and also bronchitis. The tumor and also the swelling of the glands were both entirely removed. (Translated for the AMERICAN PRACTITIONER from *Allgem. Wien. Med. Zeitg.*)

BROMIDE OF ETHYL THE MOST PERFECT ANESTHETIC FOR SHORT, PAINFUL SURGICAL OPERATIONS. — Prof. Julian J. Chisholm, M. D., of the University of Maryland, communicates the following to the Maryland Medical Journal:

On account of its activity, efficiency, and the evanescent nature of its narcotic effects the bromide of ethyl has become my favorite anesthetic for all surgical cases in which, by quick manipulation, I can perfect a painful operation in a short period.

Experience by daily administration has taught me this very valuable lesson, viz. that the bromide of ethyl is not an anesthetic which can be advantageously repeated or its inhalation be continued for any length of time. This is one of the serious mistakes which we made in our early experiments, and which induced me, through ignorance, to discard the new agent as unreliable.

Its wonderful action is obtained during the first minute of its inhalation and what I have called its primary anesthesia.

In cases in which from some interference with the rapidity of the manual of operative procedure this primary anesthesia wears off, and a second and even more numerous administrations have to be made to keep up the anesthetic state until the operation can be completed, while the narcosis can at all times be reproduced, nausea is very apt to follow. By this frequent repetition of the inhalation a mental depression is established, as from the continued use of chloroform or ether, which may last many hours.

Fortunately there are many surgical operations of a very painful nature which can be perfected within the short period of a primary ethyl narcosis. Abscesses can be lanced, cysts emptied, sinuses laid open, wounds probed, strictures incised, muscles divided, ingrowing nails removed, surfaces cauterized, examinations made necessitating painful manipulations, and even amputations may be performed.

The irritable eyes of children can be thoroughly examined, tumors removed from the lids, orbital sinuses explored, the lachrymal canals laid open, the nasal ducts probed, foreign bodies removed from the cornea, canthotomy practiced, crossed eyes straightened, the operation for artificial pupil perfected, ingrowing lashes destroyed by the cautery, needle-operations for soft or capsular cataracts effected, and even optico-ciliary neurotomy completed.

All such operations I perform now under a primary ethylization, if the patient exhibits any timidity or expresses a desire to be put to sleep. Cataract extractions, enucleations, and many lid-operations

require more time for their safe performance than ethyl narcosis permits. If every preparation be made in advance, instruments arranged in the order in which they are to be used, and placed within easy reach, and if the surgeon is able to manipulate with dexterity, it can be readily seen that a very large part of the painful procedures of surgical practice might be made altogether painless by taking advantage of the wonderful nature of ethyl narcosis.

In eye surgery I not only use ethyl daily, but if deprived of it would feel that I had lost one of my very best assistants.

What can be more satisfactory than the correction of that ugly deformity, squint, under the perfectly quieting influence of the bromide of ethyl, in less than one minute, to cover ethylization and the tenotomy? In fifty-two seconds I have ethylized the patient and completed the division of the faulty muscle, and the patient quite himself in two minutes more. This was my most expeditious operation. I have repeatedly completed the entire operation for the correction of squint, including the whole time necessary for the administration of the anesthetic, in less than sixty seconds.

To use the bromide of ethyl efficiently, one must have confidence in himself and also in the safety of the agent which he is administering.

For long operations, or such as I desire to complete slowly, I prefer to administer chloroform, an anesthetic with which I have had a long, extensive, and uninterruptedly satisfactory experience. *Of over twelve thousand patients upon whom I have operated under the narcotic effects of chloroform I have not lost one.* These patients cover organic disorders of heart, lungs, kidney, or visceral disease in persons of all ages, from the child only a few days old to my oldest chloroform administration, a very old man of ninety-six. Some were strong, while others were very feeble. I never refuse the comforts of an anesthetic to any person upon whom I have to operate.

Chloroform has always served me so faithfully that I have never had any good reason for transferring my allegiance to sulphuric ether. I now and then use ether, but only at long intervals. Should a patient express any positive objection to chloroform, and desire that ether be administered in his case, I always carry out his wishes. When the selection of the anesthetic is left to me, and it usually is, my preference is decidedly for chloroform. I use chloroform so freely that I buy it literally by the gallon or in seven-pound bottles, many of which I have emptied. Of sulphuric ether I still have a pound bottle, which has been in my possession already five years, with contents not yet consumed. I believe that sulphuric ether is as safe as chloroform,

but not more so. I know it to be more disagreeable in its odor and much more unpleasant in its inhalation. I believe that either chloroform or ether, when carefully given in accordance with well-known laws, which should always be observed in the inhalation of anesthetics, will, with few very rare exceptions, carry safety in its train. I also believe that if proper care be not taken trouble may come to both patient and surgeon regardless of the agent selected. Some physicians have much more anxiety while using anesthetics than others, not because they have a worse class of patients, but because they have never acquired the necessary confidence in the article they use, nor do they feel the necessity, under conviction, of always having and observing fixed rules for their guidance in the use of these powerful agents.

After an experience of thirty years of an active surgical practice I still hold chloroform to be the best of anesthetics for tedious operations, provided certain simple rules are adhered to in its administration. I can enumerate them in very few words:

1. I always, *without a single exception*, give a strong drink of whisky, from one to two ounces, to every adult to whom I intend to administer chloroform. This is done a few minutes before they get on the operating-table. Because I never omit this fundamental law, and in advance sustain the heart against the depressing effect of the anesthetic, in not one of my twelve thousand cases have I ever had to use in a single instance a hypodermic of whisky. It is already in the stomach should it be needed, and can do no harm if not required.

2. Always loose the neck- and chest-clothing, so as to have no impediment to respiration.

3. Only administer chloroform in the recumbent posture, with the body perfectly horizontal and head on a low pillow, this pillow to be removed as the anesthesia progresses.

4. Give chloroform on a thin towel folded in conical form with open apex, so that the vapor before inhalation will be freely diluted with atmospheric air. In holding this cone over the face of the patient at some little distance from the nose, place the fingers under the borders of the cone for the double purpose of allowing air to enter freely, and also to prevent the chloroform liquid on the towel from coming in contact with the skin of the patient's face, and thereby avoid its blistering effects.

5. Should loud snoring occur, force up the chin. This manipulation, by straightening the air-passages from the nose to the larynx, makes easy breathing. The forcible elevation of the chin is far better

in every respect than pulling out the tongue. It is easier of application, more quickly done, requires no instruments, and is much more efficient in removing the impediment to respiration.

By always following these five simple rules I have had so far both safety and comfort in the administration of chloroform.

Possibly one very strong reason why I have been so successful in the administration of chloroform is that, as a specialist in eye-surgery, the inhaler must be removed from the nose before I commence the surgical manipulations. Besides, while operating I have constantly in view both the color of the face and the respiration of the patient, which I consider even more important for the surgeon to observe than to feel the pulse. When surgeons are operating on distant parts of the body, and can not watch the work of the administrator of chloroform, accidents are most apt to happen.

The recumbent posture I consider essential for the safe administration of any anesthetic, whether it be chloroform, ether, or ethyl; hence these agents are not safe remedies at the hands of dentists, who place their patients in a sitting posture. Preparatory to the inhalation of the bromide of ethyl the only precaution I take is to loose the neck-clothing and have the patient lie down with the head only slightly elevated.

My experiments have taught me that the mode of administering the ethyl should differ totally from that used in giving chloroform.

Instead of a chloroform vapor freely diluted with atmospheric air, a saturated ethyl vapor must be inhaled to the exclusion of atmospheric air in order to obtain speedily and effectually narcosis.

In my early experiments with this new agent I had not yet discovered this fundamental principle, and hence did not obtain good results. I voted bromide of ethyl a failure, because, in common with other experimenters, I was too timid, or rather I should say too ignorant of its peculiarities, to push the ethyl vapor in the concentrated form which I have since found necessary to obtain good results. By my present method of administering it I can obtain perfect ethylization in patients in from twenty to sixty seconds, and have no after-consequences of nausea or dullness of feeling.

The best inhaler for the giving of the bromide of ethyl is a thick towel folded into the form of a small cone with closed apex. Between one of the folds of the towel I place a sheet of paper, which makes the cone nearly air-tight. The base of the cone must be wide enough to inclose both mouth and nose. The soft material of which the inhaler is made enables the rim to be kept firmly in contact with the

face, so as to exclude air from entering. I always instruct the patient how to make long inspirations, and inform him that he must do this, notwithstanding the fact that he will feel somewhat stifled. I also try to give him confidence by assuring him that a very few inspirations will put him to sleep. Usually I make him go through the process of strong respiratory movements in advance, so that he will know exactly how to proceed. Into this towel cone I pour about one dram of the bromide of ethyl, and immediately invert the inhaler over the nose and mouth of the patient, holding its edge down firmly over the face. There is no fear of creating asphyxia, as all air can not be excluded, and the height of the cone makes a considerable air-chamber into which the patient breathes.

Children usually struggle to escape from the apparatus. *The cone, however, must not be removed from the face for an instant until anesthesia is produced.* At first some patients will resist the breathing of the vapor, but there is no fear that they will not catch their breath in time. Should children cry, it only insures inspiratory efforts, which the more surely and quickly will bring about the introduction of the vapor into the lungs. As a rule, a dozen full inspirations are all that are needed to produce deep narcosis. I recognize this desirable condition by a stoppage of all struggling. I have had deep sleep brought on by the sixth inspiration, when complete relaxation ensues, with quiet breathing, and an absence of reflex irritation should the conjunctiva be touched. The patient retains the usual healthy color of lips and cheeks as if in ordinary sleep, and the pulse becomes slower and stronger as the narcosis becomes profound. Thirty seconds, as a rule, is sufficient to bring about this desirable condition and have the patient ready for operation.

I have not found this anesthetic sleep last more than two or three minutes, often not so long. Usually the patients awake suddenly and as completely as they would do from ordinary sleep. They are able to get down from the operating-table without assistance and walk off without staggering, and with brain clear to answer correctly any question; in fact, quite themselves.

It took me some time to acquire such confidence in the safety of the remedy as to apply it in the concentrated form needful to obtain its fullest benefits. To the uninitiated it looks like cruel work to keep the cone of a saturated ethylized vapor over the face of a struggling patient. *I am convinced, however, that in no other way can quick, complete, and safe anesthesia be obtained by it.* Fortunately the struggling is very soon over, and quiet sleep speedily ensues.

My experience with the bromide of ethyl will now exceed four hundred cases, of which upward of three hundred are within the past year. I am beginning to be familiar with its administration and its effects. *I know now what is to be obtained by it and what not to expect from it.* I give it without hesitation in any case to avoid painful manipulation. I have used it as often as six times a day, and I administer it, on an average, certainly once every day. In the last week I have given it fifteen times. For office use I find it invaluable, upon account of its promptness, efficiency, evanescent nature of the anesthesia induced, the absence of nausea, and the perfect comfort with which patients operated upon can leave my office within a few minutes after the ethylization. Its use in my every-day experience does not interfere with the routine of office practice, nor occupy more time than I give to an ordinary office-consultation.

Those who will use it by a single inhalation to produce a short, deep sleep, and not resort to a mal-administration of this very valuable, powerful agent for a continued anesthesia, which it is incapable of sustaining in safety and in comfort, will become as enthusiastic as I am over its brilliant results. They will in time learn to consider it, as I do, the most perfect of anesthetic agents for quick, painful surgical work. It can never take the place of chloroform or sulphuric ether where any heavy operations are to be done. These well-known and tried anesthetics must continue in favor for all tedious operations, and will be used in minor surgery by those who manipulate slowly and who do not have prompt, quick assistants. But when one can take advantage of a primary anesthesia from the first administration of the bromide of ethyl, and having made every preparation in advance, will manipulate quickly, the new anesthetic leaves nothing to be desired.

SPONGE-GRAFTING.—Dr. P. W. Perkins Case writes on this subject to the British Medical Journal as follows :

My notes furnish six successful cases of sponge-grafting. All I have tried have had the sponge completely transformed before the patient's discharge, with one exception, viz. a woman who, before complete transformation had taken place, left the infirmary.

Our method is to get the finest Turkey sponge, free from grit, etc., and slice it as thin as possible, soak it in acid nitro-hydrochloric oil for two or three weeks, till all the calcareous and silicious matters are dissolved, then after repeated washings with water it has a very soft,

velvety feel; this, neutralized by washing with liquor ammonia and steeping in carbolic-acid solution one to twenty for twenty-four hours, is ready for use.

A healthy granulating surface is required for it; we prefer that of a burn, especially if there have been loss of subcutaneous tissues. First, we gently scratch the granulations till they bleed slightly, then place pieces of this sectioned sponge about the size of a shilling on the bleeding granulations, and they soak up blood, which, coagulating in the meshes of the sponge, forms thereby a temporary adhesion. The superficial wound-surface, if less than two inches square, we entirely cover with sponge; if more than about two inches square, we cover it about half irregularly with pieces of that size, and dress it after the Listerian method with oiled silk, six or eight piles of sanitas gauze, gutta-percha tissue, and bandage. Sanitas lotion is generally used afterward at the dressing, it being not so irritating as carbolic acid. The dressings are usually taken down the second day, and the grafts are then found firmly adherent by the coagulum, and comfortable; afterward dressed every second day; but great discharge requires daily dressing.

Dr. J. Ferguson mentions one of his cases that went wrong. He says: "The patient complained of much pain extending up the limb, and the appearances of erysipelas were found spreading from the ulcer upward," and "the patient declared himself the subject of idiopathic erysipelas." Three similar cases I have seen, two of them being Dr. Ilott's. I have no notes; but with these, from the seventh to the tenth day, the same occurred locally, and in each there was a febrile state of the patient, but, in addition, the sponge with the pus in its meshes was putrefying, and only removal of the sponge by charcoal poultices, complete cleansings, and saline medicine reduced these symptoms. We therefore considered each to be local blood-poisoning; and afterward, when treating a large granulating surface, we placed grafts irregular (as before mentioned) to obtain the best possible means of cleansing the grafts and lessening the surface of sponge for absorption. Dr. Ferguson's may have been similar.

Like him, we also found, after the removal of the grafts by poulticing, and a healthy state restored, "that what had been the type of indolence and obstinacy among such sores was now the picture of healthy action—the surface abundantly vascular, and standing well up toward the level of the skin. The simplest dressings were now sufficient to promote repair."

The sponge, like a catgut ligature, appears to become completely

organized. The graft, partially filled with clot, becomes paler in color, and especially so at its edges, then more of a jelly-like and homogeneous consistence, and at the margin it will become lost in granulation-tissue, having no line of demarkation; this invasion continues from without inward until the last little central island of sponge-texture, as such, disappears.

As far as I have observed, sponge does not appear to be transformed into epidermis; if eventually to cutis vera, I have so far had no means of determining; but in a patient, whose ulcer of sixteen years' existence I grafted on August 9th last (it then being fiddle-shaped, over the front of the lower third of his right leg, six inches long, and about two and three quarter inches wide at each side, and one and three quarter inches at the middle), it duly transformed to granulation-sponge grafts equal to about half its superficial area; but I am yet waiting, and I fear in vain, to see the transformation into epidermis completed. Cuticular covering has gone in considerably from the margins, but now proceeds very slowly. In a small wound, and especially in a recent burn if small, this want of cuticle is rarely experienced over the soft parts, because of marginal growth and drawing on the surrounding skin.

ON THE PRACTICAL APPLICATION OF SPONGE-GRAFTING.—Prof. Hamilton, of Aberdeen, whose articles on Sponge-grafting we copied last spring, writes to the *British Medical Journal* the following in regard to the practical application of the procedure:

The first experiments I made were by placing a thick slice of sponge in the wound, sufficient to at once fill up the gap caused by the loss of tissue. There are several objections to this procedure, the chief being that a mass of sponge three quarters to one inch thick, placed over a suppurating wound, becomes soaked with pus, and prevents any free drain from taking place. The pus so accumulated is almost sure to putrefy, and so interferes with the process of organization going on in the deep layers. The danger of contact of such a putrefactive mass with an open wound, although less in the case of one that is granulating, is probably not to be underestimated.

I have, accordingly, generally found that in such cases it is necessary to cut off the superficial parts of the sponge, leaving the thin layer, which had become infiltrated with organizing tissue, adherent. All this inconvenience can be avoided by adjusting the sponge in successive thin layers over the wound. These layers are not more than

an eighth of an inch thick, and must be cut in large slices with a perfectly regular surface. The only method I know by which this can be accomplished is by means of a freezing microtome. I happen to possess a large microtome suited for the purpose, which I employ for cutting sections of the entire brain. It holds an entire Turkey sponge, and when the latter is frozen the whole mass can be cut into perfectly regular slices of any desired thinness. Such a layer can be laid with the greatest facility over the wound, so as to fit into all its irregularities. In a few days the first layer becomes organized. A second can then be placed over this, and so on, a mass of tissue being thus, in course of time, built up. There is no bagging of pus by this method of applying the sponge, and the danger of putrefaction occurring is reduced to the minimum.

Another precaution that is necessary is, to see that where the wound is granulating the edge of the layer of sponge does not come into contact with the pellicle of young epidermis at the side. If so, the epidermis will undermine it and cause displacement. There ought to be one interval of about an eighth to a quarter of an inch between the edge of the epidermis and that of the sponge.

Dr. Sanctuary, in the Journal of December 16th, makes the remark that firm pressure is a *sine qua non* in obtaining adhesion. I agree with him so far that when first applied there ought to be firm and equable pressure all over the surface; but I question, after adhesion has once taken place, whether pressure exerts a salutary influence in promoting organization. On the contrary, I should consider that the interstices of the sponge would fill up quicker if the vessels of the granulating part had free play. I should almost say that in the treatment of a granulating wound of the lower extremity it would be advantageous, when the sponge has once taken firm hold, to allow the limb to hang downward, and probably to encourage the patient to take gentle exercise. By this latter means the circulation through the granulation loops will be rendered active; and a certain amount of vascular turgescence is what is really required.

COMPARATIVE ACTION OF THE BROMIDES.—*Le Progres Medical* states that M.M. Cheron and Fouques, having experimented with the three bromides of potassium, sodium, and ammonium, have reached the following conclusions: These salts act, in virtue of their bromine, as moderators of the reflex centers. The bromide of potassium joins to its sedative action on the nervous

centers a depressing action on the muscular system; it is thus a neuro-muscular agent. The bromide of sodium has an action on the nervous centers like that of bromide of potassium, but does not affect the muscular system; it is thus simply a moderator of reflex action. The bromide of ammonium has, in virtue of its bromine, an action on the nervous system similar to that of the other two, while it is also, in virtue of its ammonia, an excitant and diffusible. It is thus at once a moderator of reflex action and a peripheral excitant. Consequently, when it is desired to influence the reflex powers and the muscular system, preference should be given to the bromide of potassium. If, however, we wish to act only on the reflex centers, the bromide of sodium is indicated. Finally, if, leaving the muscular system out of consideration, it is desired to act on the nervous centers to influence the circulation and to affect the blood-pressure, the bromide of ammonium will most probably give the required results.

NEW OPERATION FOR SPINA BIFIDA.—Mr. A. W. Mayo Robson showed a child six weeks old, upon whom, when six days old, he had performed a new operation for spina bifida. The redundant parts removed by the operation were also shown. After the removal of these parts, and after stitching up the arachnoid over the spinal canal, periosteum from a rabbit was inserted between the meninges and the skin so as to cover up the gap in the bones. The wound had perfectly healed; the skin over the lumbar region was quite level; there seemed to be no tenderness on pressure; the child looked strong and healthy. The sac, examined by Mr. F. H. Mayo, was found to be of the size and shape of half a swan's egg, the wall consisting of true skin and subcutaneous tissue lined by serous membrane. At one point the sac was very thin and transparent, appearing to consist only of the serous membrane covered by a thin layer of epidermis, when fresh minute blood-vessels could be seen to ramify over it. Mr. Robson drew attention to the following points: (1) The operation was performed with full antiseptic

precautions, eucalyptus air being used instead of carbolic spray. (2) The meninges were closed by uniting the serous surfaces, as in peritoneal surgery. (3) The transplantation of living periosteum and its continued vitality; it had not yet, however, formed new bone, but already the covering of the canal had a greater than mere skin firmness. (4) The entire absence of bad symptoms in the child operated upon at so early an age was noticed. (British Medical Journal.)

ON THE EFFECT OF SALICYLIC ACID.—Its ordinary effects are, difficulty in hearing, ringing in the ears, headache, vertigo, drowsiness, and delirium. During fever the temperature is considerably lowered; after a large dose sometimes profuse sweats occur, then urticaria and erythema, nausea, vomiting, diarrhea, seldom albuminuria [blood from the kidneys. *Translator*]. A few authors mention difficulty in breathing, either a simple dyspnea or hard inspiration, with or without slowness of the same. Dr. Quineke believes the impaired respiration the most common phenomenon of salicylic acid. Its continued use is always accompanied with very hard but not slow breathing; the frequency never changed in his experiments; also the pulse was not changed. The doses causing such effects were different. Dr. Quineke reports a case having these symptoms, the patient dying from hyperemia of the brain due the drug, although the dose has been only an ordinary one. The impaired respiration here is similar to that of diabetes, and judging that a certain substance (acetic ether) produced by diabetes be the cause of that phenomenon, and on the other hand that only a small quantity of the salicylic acid could be detected in the organs after death, Dr. Q. believes that a similar substance and not the drug directly might produce the impairment of respiration. (Translated for the AMERICAN PRACTITIONER from *Berlin Klin. Woch.*)

ON ALBUMINURIA BY PROF. SENATOR.—Among the symptoms of chronic and acute morbid Bright's, albuminuria requires the most attention not on account of the loss of albumen. Half a

pound of meat would replace that loss for a week in ordinary cases. But it gives the best control over the sickness. Perhaps the excretion of albumen is also an irritant to the kidney. Sometimes more albumen has been excreted than imported and not of the original quality (that of the egg), but as it is in the serum and globulin. The medical treatment of Bright's disease has not been successful (iodide of potass. might be excepted in certain cases). So much more stress has to be laid on the hygienic condition, and especially the diet. It is recommended to give, instead of large meals, small quantities of food often, because it is observed that the excretion of albumen is increased during digestion.

Lehmann and Stokvis, and some others, showed that albumen injected into the blood-vessels or in the stomach increases the excretion. Therefore eggs should not be allowed to albuminuric patients. But even meat has a similar influence, also cheese. We omit the theory of the phenomenon. Besides the increased albuminuria such a diet would increase the quantity of urea, phosphoric acid, and other final products, and thereby increase the danger of uremia. The consumption of meat should be restricted at least to white meats and fish. Of the vegetables only the leguminose have to be excluded. In regard to these and the fats the condition of the stomach has to be considered. They form the most important food to these patients. Alcoholic liquors have been empirically recognized as irritant to the kidneys, but Penzolat proved that lately for athyl and amyl-alcohol by experiments on animals. Nevertheless, mild wines might be given, but no whisky, brandy, or beer. Spices and smoked meats are injurious. Milk diet is of greatest value, but it can not be followed exclusively because it would not furnish either enough food nor in good proportion; bread and so on have to be added. Though the alkalies are irritants to the kidney, saline and alkali-saline waters improve the nutrition, probably by influencing the digestion and the condition of the blood, which, according to English authors, might be presumed to be the primary cause of albuminuria. Attention to the functions of the skin has always

been recognized as a matter of the greatest value. Free action of the skin relieves the kidney; there is not so much confluxion of blood, not so much water goes through, and experience shows too that less albumen is lost. It is recommended to keep the skin in permanent transpiration. After the use of saline baths the skin remains turgescient for some time afterward. The patients ought to be kept in bed. Besides a freer transpiration there is less wasting by muscular action. Quietude of the mind is another point of consideration. It is a well-known fact that fright, vexation, and so on increase albuminuria. So does menstruation. A special care at this period is required. A climatic cure combines all these requirements; for the poorer class hospitals offer a compensation. (*Ibid.*)

DR. BRUNTZEL reports the extirpation of the left kidney for a fibroma of its capsule weighing thirty-seven and a half pounds. Recovery. This is the seventy-seventh case published, and refers to a single lady of thirty-three years of age, who eight years ago observed the tumor, and had consulted several gynecologists of repute some three years ago. All refused an operation on account of her emaciation. Her general condition improving showed that the tumor was benign, but its anatomical character could not be determined. In the operation an incision was made from the xiphoid process to the symphysis. The tumor was found to be retro-peritoneal; the peritoneum was incised in the median line, and carefully taken from the tumor without much difficulty except near the descending colon. There was profuse bleeding from the vessels leading to the tumor. After the removal of the tumor the life of the patient was endangered by the narcosis. When cleansing the wound the ureter was found cut through, but no kidney could be discovered, for that had been removed, imbedded in the tumor without any degeneration of its substance. The suture of the posterior peritoneum was difficult on account of the repeated prolapse of the stomach. The four edges of the incised peritoneum were united, those of the right side and those of the left side were sewed together,

forming two cavities as before by the tumor, but communicating above and underneath. The open retro-peritoneal cavity was drained in front on account of the weakness of the patient. A drainage through the lumbar muscles was intended. Strict Listerism. The recovery was interrupted by the bursting of the intestine, probably the descending colon whose mesentery was closely attached to the tumor. The fistula healed up in a short time. The other complication was paralysis of both radial nerves. Faradization was resorted to for many weeks. When the patient was up again her weight was seventy-seven pounds exactly, twice as much as the tumor. But now the lady rejoices in perfect health, is able to walk and work. (*Ibid.*)

PROF. SOMMERBRODT reports a case where repeated hypodermic injections of tincture iodi. have been given for struma. Once the needle pierced in very deep, it was drawn back immediately and the injection made carefully. But at the same time the patient, a young, healthful girl, said with a hoarse voice: "I can't talk any more." After that she came under the treatment of Prof. Sommerbrodt, who found the left vocal ligament paralyzed. Faradization was resorted to daily for months without any result. There was not aphonia, only weakness and hoarseness which became worse afterward. A repeated laryngoscopic examination showed a compensative inaction of the intact ligament, which was lost afterward. At first the left recurrent nerve was paralyzed entirely and the right one partially, then this last paresis decreased for a while but became worse again. Prof. S. declared it a reflex paralysis contrary to McKenzie's opinion, who had published a similar case. (*Ibid.*)

DR. WALL reviews twelve cases of chronic diphtheria. He says the course of the disease is different in the pharynx; the membranes are not removed there so soon as from the tonsils, and there is a constant source of contagion. If the secretion is profuse the disease can not be overlooked, but that is not always the case; he had twelve cases where his rhinoscopic examina-

tion revealed the nature of the discomfort. Large ulcers and destructions were detected. Impaired hearing and pain in the eyes have caused an examination. There was always a pain in the eye, generally on one side, spreading over the head, especially when true ulcer was at the basis of the cranium. The ulceration resisted sometimes every treatment and came down to the soft palate and even the esophagus. Local complaints became very severe sometimes, with a general debility without fever. The ulcers were similar in character to those of syphilis or tuberculosis. Dr. Wall says diphtheria gets its most destructive character in cases where hereditary syphilis, scrofulosis, or tuberculosis could be traced.

The treatment is tedious; a solution of carbolic acid, five to eight per cent, powdered iodoform, and boric acid are the best remedies, assisted by the frequent use of the nasal douche. These strong solutions must be used strictly at the place; weaker solutions might be used in the atomizer. The anti-syphilitic treatment in doubtful cases must always be postponed. (*Ibid.*)

PROF. CZERNY gives a few hints in regard to his new method of extirpation of the womb from the vagina. First he carbolizes even the abdominal cavity, secondly he makes the circumcision of the vaginal apex as wide as possible. He says a cut into the bladder is not important; he opens the abdominal cavity before or behind the womb; he compresses the aorta. A close suture of the vaginal wound is not necessary, sometimes unfavorable. As after-treatment he favors strict Listerism with iodoform. (*Ibid.*)

DR. WOLBERG reports a return of scarlatina immediately following the desquamation. The child died. No post mortem. (*Ibid.*)

DR. ELLINGER says scoliosis of scholars can be prevented by holding the book to the right and by writing alternately with the left hand. (*Ibid.*)

DR. WITTHAUER recommends for whooping-cough: Tincture eucalypti, 3.0; glycerin and syrup, āā 15.0; aq. fort. 100.0. A dessertspoonful every three hours. For babes one and a half to four years of age the dose is five to eight drops, in sweetened water, every three hours. He also recommends the inhalation of the tincture. He has treated only four cases, but with a decided effect. (Translated for the AMERICAN PRACTITIONER from *Memorb.*)

DR. KERSCH has made experiments with iodide sod., potash, and ammon. on a large scale. Iodide of ammon. produced iodism soonest. He took five grams every day for ten days; only the first dose caused poisonous symptoms; he gave three-gram doses to other patients, which, after some iodism after the first dose, was borne pretty well except when the dose was increased. The organism accommodates itself to any quantity of it. These iodides are transformed very rapidly, causing sometimes salivation, sweats, increased urination, one half to one quart more in twenty-four hours, eruption on the skin (especially iodide of ammon.). Seventy-two hours after its administration not a trace could be detected by amylum, chloroform, or sulphuret of carbon, neither in the urine nor in the secretions of the nose, the vagina nor in the feces, epidermis, nails, hair; only in a few cases the acne-pustules showed some traces. But twenty-four hours later iodine could be detected again by amylum. That fact explains the cumulative effect of the drug after a continued use even in small doses. All individuals were attacked alike only that the saturation appears sometimes a little later. The accommodation required by a prior iodism diminishes after a while. Dr. Kersch concludes: Iodide of potass. ought to be given in two to three-gram doses in tea at bed-time, to be continued regularly after the iodism (one in two days) has passed over. Should iodism re-appear, the drug has to be discontinued for four days. (*Ibid.*)

Notes and Queries.

THE KENTUCKY STATE MEDICAL SOCIETY will meet in Louisville, in Public Library Hall, at two o'clock, on the first Wednesday in April next. The president of the society for the year is Dr. A. D. Price, of Danville. The chairman of the Committee of Arrangements and Credentials is Dr. Coleman Rogers, of Louisville. The remaining committees are distributed as follows: On Improvements in Practical Medicine, Dr. L. P. Yandell, Louisville; on Improvements in Surgery, Dr. W. M. Fuqua, Hopkinsville; on Improvements in Pharmacy, Dr. J. S. Moore, of Marion County; on Obstetrics, Dr. Preston B. Scott, Louisville; on Hygiene, Dr. J. J. Speed, Louisville; on Materia Medica, Dr. T. B. Greenley, Jefferson County; on Ophthalmology, Dr. J. Hale, Owensboro; on Otology, Dr. J. H. Letcher, Henderson; on Dermatology, Dr. J. A. Ochterlony, Louisville; on Epidemics, Dr. Ed. Alcorn, Hustonville; on Vital Statistics, Dr. S. A. Foss, of Jefferson county.

Besides the regular work of the society, it is understood that there will be a number of volunteer papers, embracing many interesting subjects, read by members. We make no doubt that ample time will be afforded for the discussion of all scientific matters brought before the society, while from every side come assurances that the attendance will be large and the proceedings spirited and full of interest. Visiting members will receive a genuine home welcome from their brethren resident in Louisville. In conclusion, the American Practitioner begs to invite not only its friends and neighbors in Kentucky and Tennessee, Indiana, Illinois, and Ohio, but as for the matter of that, in any other adjacent or distant sovereignty, to come and take something with us on the occasion referred to. All will be welcome,

and the more who come the better we will like it. April is a month which contains the letter R, and the *scolopax delicatula* will be at its best.

THE ESTABLISHMENT AND MAINTENANCE OF BRAIN-HEALTH. J. Batty Tuke, M.D., F.R.C.P., F.R.S.E., writes, in the Medical Press, that he held it to be a well-ascertained physiological fact that the brain-cells were organs which could be acted on for good or for evil, and that they were directly subject to the laws of health. It might be said, in passing, that as a nation we had decided to adopt a system of education which was in itself the greatest brain- tonic at our command, a remedy which, if not altogether a specific, must strike deeply at one great cause of crime, misery, and degradation. Especially in our great cities there was a considerable class, the members of which might be termed moral idiots. A child brought up, or rather dragged up, in a cellar, whose parents were thieves by profession, whose companions were equally degraded, who was surrounded from his earliest days by scenes of debauchery and wickedness, must almost inevitably fail to develop a moral sense. Right was wrong to him, and wrong was right. Strictly speaking, this was his moral sense. 'Some of them might feel at times inclined to grumble at the expense and working of the education act; but the grumble would cease if they reflected that they, as a nation, were doing their very best to remove a serious opprobrium from society. The compulsory education act was something like the compulsory vaccination act. Society had determined, in the one case, to apply a preventive to the spread of a serious and dangerous bodily disease, and in the latter, to a grave and serious moral disease.

In speaking of the influences which act for good or evil upon the brain, Dr. Tuke alluded first to those over which the individual had no control; and second, to those over which every man and woman could exercise control. The influences over which the individual had no control were those connected with his antecedents and upbringing. A man might be handicapped

in life by the mistakes or faults of his ancestors ; and, different from the race-horse, he had to carry weight in the race of life according to his imperfections, not according to his advantages. There was a pretty general consensus of opinion that consanguineous marriages were, on the whole, to be deprecated. If they tasked their memories, and tried to remember how many perfectly healthy families they had known—families without a history of consumption, gout, rheumatism, affections of the nervous system, etc.—he feared the number they could estimate would be very small ; and if they took into account the tendency of such diseases to become intensified in the children of cousins, he thought they would agree with him that consanguineous marriages involved a risk which it was not well to incur. Alluding next to a question which was often put him by anxious parents, whether it was advisable to allow their children to marry into families in which nervous disease was known to exist, he remarked that of course, as an abstract proposition, there was but one answer to the question—that it was not advisable ; but while he did not advocate marriage under such conditions, he expressed the opinion that there was not much more, if any, reason for avoiding a family in which there was a history of nervous instability than there was for avoiding families in which other forms of hereditary disease existed. Passing to consider the practical questions connected with the rearing of the infant and child, he said every child's future history depended on the food it got and on its surroundings. Much depended on the mother ; if healthy, she should suckle her child, but not for too long. He had met with many cases in which the sole ascertainable cause of nervous symptoms in young children was their being too long suckled. But the mother herself must be well fed, and this brought him to the consideration of another question.

In some respects he believed the food of the working classes in Scotland was improved, partly because wages were higher, partly because in the new workmen's houses the means of cooking were better, and partly because new articles of diet had been

introduced into the market. But he also believed that it had become deteriorated in a very important item—porridge and milk—for which had been substituted a much less nutritious, and in itself a somewhat deleterious article of diet—tea and bread. The physiologist would tell them that porridge and milk was a “typical” food; that was, that it contained all the necessary constituents of food in the most perfect proportions. He had nothing to say against the staff of life so long as it was sound in quality and well fired, except that it was not such a typical food stuff as oatmeal, and, weight for weight, did not possess as equal power of nutrition as porridge. He advised all workingmen, whether they worked in the workshop, in the office, or in the study, to feed themselves, their wives, and their children, at least once a day, on the most perfect form of food which God has given them—porridge and milk. The next subject which naturally suggested itself as exercising an important influence on the child’s brain-cells was education.

With every respect for the management of public philanthropic institutions, he would much rather see a child of his less well-dressed, less well-fed, living early into real life, his brain-cells absorbing real experience, and becoming educated by normal vicissitudes, than see him the best boy in the best hospital in the country; and, speaking as a physician and a physiologist, he would advise all to avoid the temptation, should it be presented to them, of sending their children to any institution when by any sacrifice they could keep them at home. Of course, a child had to encounter greater dangers at home than when shut up in a monastic institution. They were overworked, and overworked themselves, at school. One of the great causes of overstrain in early youth was the vicious system of offering prizes for competition. It deflected the mind of the child from the main aim and object of its study, and often defeated the object which it was hoped to obtain. The youthful mind must not be pressed too far in the direction of abstract facts and theories. Our own educational system was running somewhat wild in this direction, and the child’s brain did not get time to

assimilate the food it got. A sort of brain-dyspepsia or indigestion set in.

His experience might be exceptional, but it tended toward the opinion that the rising generation was not so well acquainted with the standard literature of our own country as boys and girls were twenty-five or thirty years ago. He dared say its knowledge of the hard facts of history was more exact; the rules of arithmetic might be more thoroughly understood, but he doubted very much whether "Robinson Crusoe," the poems of Burns, the "Pilgrim's Progress," Sir Walter Scott's glorious novels in prose and verse, Prescott's "Conquest of Mexico and Peru," and such like educational influences, were as much at work as they used to be. Careful reading of such standard books helped the boy's and girl's brain to assimilate the tougher food it received at school, and introduced a digestive power which helped to diffuse the aliment throughout the whole mental system. Having pointed out the necessity of teachers knowing how to administer intellectual aliment carefully and thoughtfully, and how brain-health suffered nowadays, if there was truth in the statement that the pupil was being made for the school, not the school for the pupil, Dr. Tuke remarked that a great deal had been said and written of late about the overworking of girls and young women in schools and colleges, and his friend, Dr. Clouston, had come forward as the champion of health and ignorance for women. He could not help thinking that Dr. Clouston had overstated the position of matters; that he had based his opinions more on the observation of isolated cases than on the general condition of highly-educated women; that he had mistaken the wail of the one for the murmur of the many. No doubt, a certain number of young women suffered and broke down while studying, but this did not necessarily imply that study was the cause of the breakdown. Idleness and ignorance were much more prolific causes of disease among women than overwork. They were the main producers of hysteria, and all sorts of vaporish complaints, of many ills and evils, and of inanity, if not of insanity. As a matter of fact, it was not an easy thing to

overtask the energies of the brain by work. It was not work, but worry that killed the brain. The latter, he feared, must be ever with us all. The most highly-educated and hard-working women he had the honor of knowing were eminently healthy. Perhaps this might be the "survival of the fittest;" but even granting that it was so, the more women worked, the more fit women they would have. But breakdown from overstrain did occasionally take place, and the first really important symptom was sleeplessness; when that set in there was cause for alarm. Loss of sleep was brought about thus: When the brain was being actively exercised there was an increase of blood in its vessels—this was spoken of as "functional hyperemia." If they continued the exercise of the brain-powers too long, there was a tendency for the blood to remain in too great quantity, from the cells becoming exhausted and not being able to control the vessels. In sleep the amount of blood was diminished, and sleep could not be produced if this functional hyperemia persisted. In the absence of sleep, the cells could not recover themselves, and their activity became impaired. Headache, loss of appetite, and general listlessness followed; then changes in the character of the blood, and the trains of symptoms so ably described by Dr. Clouston. As soon as a child or young person developed continuous headache, work should be discontinued at once. In conclusion, Dr. Tuke remarked that most men working in the same department of medicine as he did recognized that if there was a hope of diminishing the amount of brain-disease, it was to be effected by preventive medicine, and he had, therefore, directed their attention more especially to the transgressions of the father than to those of the son.

ABU ALI EL-HOSEIN IBN-ABDALLAH IBN SINA COMMONLY CALLED AVICENNA.—The *Canon* of Avicenna was to the medical world the book of books, the Koran of the healing art, the rule and confession of faith of all physicians throughout Persia, Syria, Arabia, and the continent of Europe for a period of well nigh six hundred years.

The works of Hippocrates, the voluminous commentaries of Galen, and the writings of Avicenna have exercised a greater influence, and have maintained their sway over the minds of medical men for a longer time than any and all other authorities the world has ever produced. The works of this immortal triumvirate were not only the great store-houses of facts and observations, but they have been the judicial authorities in medicine, the decisions of the final court of appeals, beyond which no case could be carried.

By way of honorary distinction, so celebrated was Avicenna's reputation, he was surnamed Scheikh-Al-Reis (or Scheikh-Reyes), Prince of Physicians.

Avicenna was born about the year 980 A.D., at Afshena, one of the many hamlets in the district of Bokhara. His mother was a native of the place; his father, a Persian from Balkh, filled the post of tax-collector. Avicenna was put in charge of a tutor, and his precocity soon made him the marvel of his neighbors, as a boy of ten who knew by rote the Koran and much Arabic poetry besides. From a green-grocer he learned arithmetic; and higher branches were begun under one of those wandering scholars who gained a livelihood by cures for the sick and lessons for the young. Under him Avicenna read the *Isagogue* of Porphyry, and the first propositions of Euclid. But the pupil soon found his teacher to be but a charlatan, and betook himself, aided by commentaries, to master logic, geometry, and the *Almagest*. Before he was sixteen he not merely knew medical theory, but by gratuitous attendance on the sick had, according to his own account, discovered new modes of treatment. For the next year and a half he worked at the higher philosophy, in which he encountered greater obstacles. In such moments of baffled inquiry he would leave his books, perform the requisite ablutions, then hie to the mosque, and continue in prayer till light broke on his difficulties. Deep into the night he would continue his studies, stimulating his senses by occasional cups of wine, and even in his dreams problems would pursue him and work out their solution.

Forty times, it is said, he read through the metaphysics of Aristotle, till the words were imprinted on his memory; but their meaning was hopelessly obscure, until one day they found illumination from the little commentary by Alfarabius, which he bought at a book-stall for the small sum of three drachmæ. So great was his joy at the discovery thus made, by help of a work from which he had expected only mystery, that he hastened to return thanks to God, and bestowed an alms upon the poor. Thus, by the end of his seventeenth year, he had gone the round of the learning of his time; his apprenticeship of study was concluded, and he went forth a master to find a market for his accomplishments.

His first appointment was that of physician to the emir, whom the fame of the youthful prodigy had reached, and who owed him his recovery from a dangerous illness. Avicenna's chief reward for this service was access to the royal library, contained in several rooms, each with its chests of manuscripts in some branch of learning. The Samanides were well-known patrons of scholarship and scholars, and stood conspicuous amid the fashion of the period, which made a library and a learned retinue an indispensable accompaniment of an emir, even in the days of campaign. In such a library Avicenna could inspect works of great rarity, and study the progress of science. When the library was destroyed by fire, not long thereafter, the enemies of Avicenna accused him of burning it, in order forever to conceal the sources of his knowledge. Meanwhile he assisted his father in his financial labors, but still found time to write some of his earliest works.

The commencement of his *Canon of Medicine* dates from his stay in Hyrcania. He subsequently settled in Rai, where about thirty of his shorter works are said to have been composed. But the constant feuds which raged between the regent and her son compelled the scholar to quit the place. He entered into the service of a high-born lady; but ere long the emir, hearing of his arrival, called him in as medical attendant, and sent him back with presents to his dwelling. Avicenna was even raised to the

office of vizier; but the turbulent soldiery, composed of Koors and Turks, mutinied against their nominal sovereign, and demanded that the new vizier should be put to death. Shems Ad-daula consented that he should be banished from the country. Avicenna, however, remained hidden for forty days in a sheikh's house till a fresh attack of illness induced the emir to restore him to his post. Even during this perturbed time he prosecuted his studies and teaching. Every evening extracts from his great works, the *Canon* and the *Sanatio*, were dictated and explained to his pupils; among whom, when the lesson was over, he spent the rest of the night in festive enjoyment with a band of singers and players.

On the death of the emir Avicenna ceased to be vizier, and hid himself in the house of an apothecary, where with intense assiduity he continued the composition of his works. The new emir of Hamadân, discovering the place of Avicenna's concealment, incarcerated him in a fortress. At length, accompanied by his brother, a favorite pupil, and two slaves, he made his escape out of the city in the dress of a Sufite ascetic.

During the remaining ten or twelve years of Avicenna's life he began to study literary matters and philology, instigated, it is asserted, by criticisms on his style. But amid his restless study Avicenna never forgot his love of enjoyment. Unusual bodily vigor enabled him to combine severe devotion to work with facile indulgence in sensual pleasures. His passion for women and wine was almost as well known as his learning. With much gayety of heart, and great powers of understanding, he showed at the same time the spirit of an Aristippus more than that of an Aristotle at the courts of the wealthy. Versatile, light-hearted, boastful, and pleasure-loving, he contrasts with the nobler and more intellectual character of Averroes. His bouts of pleasure gradually weakened his constitution; a severe colic, which seized him on the march of the army against Hamadân, was checked by remedies so violent that Avicenna could scarcely stand. On a similar occasion the disease returned; with difficulty he reached Hamadân, where, finding the disease gaining

ground, he refused to keep up the regimen imposed, and resigned himself to his fate. On his death-bed remorse seized him; he bestowed his goods upon the poor, restored unjust gains, freed his slaves, and every third day till his death listened to the reading of the Koran. He died in June, 1037, in his fifty-eighth year, and was buried among the palm trees by the Kiblah of Hamadân. Dr. Foster, in *Annals of Anatomy and Surgery*.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—The Board of Trustees appointed at the last annual meeting of the American Medical Association, charged with the duty of agreeing upon the plan of a weekly medical journal, to take the place of the annual volume of Transactions, and to ascertain how far pledges for its pecuniary support could be obtained from the profession, held a regular meeting in Chicago, on the 17th day of January, 1883. A majority of the members of the board were present, and communications relating to the more important questions to be discussed were received from all the members not present. The president of the board reported that he had caused the printing and careful distribution to the members of the association and the profession at large, forty thousand copies of the programme agreed upon for the proposed journal, accompanied by an equal number of pledges to be signed, and directed envelopes in which to return them. He also reported the total number of pledges received in return, and the number from each State, with such other details as would enable the members of the board to judge accurately concerning the value of the results. Full estimates of the cost of publishing the proposed journal had also been obtained from reliable printing houses in four of the principal cities, and were also submitted to the board. After a full examination of the whole subject, it was unanimously decided that the board should report to the next meeting of the association in favor of the establishment of the proposed journal. Steps were also taken to have all the preliminary arrangements so far matured that the first issue of the journal could be made within thirty days after the next meeting,

provided the association should adopt the recommendation of the board.

But, while the members of the Board of Trustees were thus satisfied that the present number of returned pledges afforded a safe basis on which to commence the journal form of publication by the association, they deemed it very desirable that, at least, five hundred more should be added to the list before the time for making their report, that there might be no reason for doubt or hesitation on the part of the association, when it should be called upon to take final action on the subject.

They therefore directed the foregoing statement to be made to the profession through the medical periodicals, accompanied by the earnest request that those members of the profession who are willing to support the journal, and have not already returned pledges to that effect, would do so by indicating their wish on a postal card addressed to the undersigned, with as little delay as possible.

To those not members of the association the subscription price will be the same as the annual dues of members, five dollars, payable on the receipt of the first number of the journal. Of course the pledges are construed as binding for only one year.

That those who have not seen the circular sent out by the board may judge somewhat concerning the scope of the proposed journal, the following is copied from the said circular:

The journal is to be under the control of the association, through its trustees, and to be issued and supplied in place of its annual volume of Transactions. It will be known as the Journal of the American Medical Association. The trustees will, if they receive a sufficient number of subscriptions, feel justified in recommending to the association the propriety of the change and the adoption of the following plan: To issue a weekly journal, each number to contain thirty-two double column pages of reading matter, and which shall embrace the following departments:

I. Original papers, addresses, reports, etc. This will include all the papers read before the association and its sections which are referred for publication.

II. Leading editorials on the scientific, educational, social, sanitary, ethical, and other interests of the profession.

III. Editorial summary of progress in the several departments of medicine and the collateral sciences, including reviews of new books.

IV. Notices of the proceedings of medical and scientific societies throughout the country.

V. Correspondence, domestic and foreign.

VI. American Medical Association intelligence.

VII. Miscellaneous medical news.

Through the medium of such a journal the proceedings and papers of the association will reach the members much earlier each year, and by its frequent visits and its large amount of additional matter of value it will maintain a much more active interest on the part of the entire membership, while its notices of the proceedings of the several State societies will tend to bring those societies into closer relationship with the national societies, and thereby greatly aid in the extension and usefulness of the social organizations of the whole profession.

All pledges or promises of subscription should be sent to N. S. Davis, M.D., 65 Randolph Street, Chicago, Illinois.

QUININE PILLS.—WM. R. WARNER & CO.—The following, sent us by Messrs. Warner & Co., we insert with great pleasure. The need of doing so has grown out of the fact that some of the seven samples of pills alluded to by the chemist were short in weight and of doubtful purity:

PHILADELPHIA, December 22, 1882.

An analysis of seven samples of quinine pills, obtained without knowledge of the manufacturers, was made and published in the American Journal of Pharmacy by me, and those made by Wm. R. Warner & Co. were found to be correct as to quantity and purity of quinine.

HENRY TRIMBLE,
Analytical Chemist.

THE vacancy made in the office of Physician in Ordinary to the Queen, by the death of Sir Thomas Watson, has been filled by the appointment of Dr. Wilson Fox, and Dr. Owen Rees has been appointed Physician Extraordinary in succession to Dr. Fox. Her Majesty could not have made a better selection.

Editors American Practitioner :

According to the desire expressed by the International Medical Congress, at its seventh session, in London, 1881, and in consequence of later discussions on this subject, it has been resolved that the eighth session of the Congress shall be held in Copenhagen. Especially in order to prevent collision with other medical congresses, we beg to request that you will, already now, in your esteemed journal, draw attention to the fact that the eighth session of the International Medical Congress will take place in Copenhagen during the days from the 10th to the 16th of August, 1884.

We are, sir, your faithful servants,

P. L. PANUM,

President of the Organizing Committee of the Congress.

C. LANGE,

Secretary General.

COPENHAGEN, December, 1882.

JONATHAN HUTCHINSON'S ADVICE TO MEDICAL STUDENTS.—

"If now I were to sum up in one sentence what I have been enforcing, it is this: The secret of all noble life lies in belief, and the characteristic of all noble minds in the vigor with which they believe that which is true. Try to attain belief in the reality of all things; so shall you never want for motives; so shall you be able to live and work without hurry and without sloth. Finally, permit me to commend you this formula: Prize strength, love the beautiful, practice self-denial, and be patient."

IN the new German Pharmacopeia three hundred and sixty articles have been struck out, and forty-eight added, a decrease of three hundred and twelve, the whole number being about six hundred. In a new edition of the United States Pharmacopeia two hundred and twenty-nine articles were cut out, and two hundred and fifty-six added, a net increase of twenty-seven, the whole number being one thousand.

BUSINESS NOTICE.—The Indianapolis office of the American Practitioner having been discontinued, all communications relating to the business of the journal should hereafter be addressed to John P. Morton & Co., Louisville, Ky.

THE AMERICAN PRACTITIONER

APRIL, 1883.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

THE PHYSICIAN IS A GOOD MAN, SKILLED IN HEALING.

THE DOCTORATE ADDRESS IN THE MEDICAL DEPARTMENT OF
THE UNIVERSITY OF LOUISVILLE, 1883.

BY THEOPHILUS PARVIN, M. D.

Gentlemen of the Graduating Class: My colleagues in the Medical Department of the University have made it my duty to welcome you to the medical profession, and to give you in this final hour of our association such counsels as it is hoped may be somewhat helpful in the new life you enter. Right heartily I salute you Doctors of Medicine, congratulating you upon honors fairly won, and which we all trust will be worthily worn. You are indeed welcome to a profession that for so many years divided with law and divinity the title of learned, a profession that must always be both useful and honorable, demanding in the exercise of its duties quite as much as in any other of life's callings, a strong brain, a big heart, a clear eye, a resolute will, a gentle, but firm hand.

While the gladness of this laureate hour thrills your whole being, hearts beating in sympathy with yours, and Hope clothes

the future with a light which never was on land or sea, who would not say, Rejoice! O young men, in your youth with its present powers and new honors, with its grand possibilities and glorious promises; only remembering that the future has perils as well which you must boldly meet, and responsibilities which you can not evade. The ship swings from her moorings in some great city, and with merry music starts upon the trackless waste of waters for a far-off land. Who knows if she will make her port? Lo! Some swift tornado may be hurrying to meet her; she may be struck when in mid-ocean and in midnight by another ship, or the angry fire may wrap her in a sheet of flame ere she is swallowed up by the hungry waters; or she may reach her destination, after many a weary delay and many a fierce struggle with wind and wave, torn sails, rent cordage, broken masts, and strained timbers telling the story of the dangers she has met. Young gentlemen, it is not what you have done, not what you now are, but what you will do and what you will be, that, in older minds at least, is matter of greatest interest and deepest anxiety. Thick mists overhang the great future, and there is no prophet voice to tell what the coming years will unfold.

Very much of life is often spent in learning how to live, and many a time mortal steps grow weary retracing wrong ways before finding the right one. How many a man has given his strength and time to making a horrid Frankenstein, that pursues him upon the land and upon the sea, is with him at home and abroad till death would be welcome if it only brought forgiveness and release! Have not misdeeds and lost hours feet swifter than the coursers of the storm, and reproaching voices that cease not day or night?

What fitting speech can I utter in this hour of greeting and of parting, what helpful words can I say unto you whose perils are many and great, whose opportunities likewise are many and great, and therefore whose responsibilities are so grave? To speak such words is my great desire and will be my earnest effort. In this regard let me adopt the conclusion of our great

master, Thos. Sydenham: "For, having nicely weighed whether it is better to be beneficial to men, or to be praised by them, I find the first preponderates, and greatly conduces to the tranquility of mind. But as for fame and popular applause, they are lighter than a feather or a bubble, and more vain than the shadow of a dream."

A famous sculptor, looking upon a block of marble, exclaimed, "I see an angel imprisoned, and I will liberate it." Behold, after months of toil, the once shapeless marble has become an angel form! The cunning chisel, the steady hand, the steadfast eye, all guided by the clear conception, have made the lifeless stone reveal the ideal that dwelt in the artist's mind. Verily, there is an angel in every human breast to be liberated, clothed in perfect beauty and power, an ideal to be realized, a life meeting the noblest ends of living to be evolved. And the triumph, more or less complete, is assured to him whose ideal is noble and true, and who faithfully works through all the years for its attainment.

Now, in order that you may make the most of your lives, have them the best for yourselves and for others, it is of first importance that you have a true conception of the physician, a noble ideal which you will day by day seek to realize in your lives. Let me take as that ideal the words used by one of our profession, Guy Patin, in one of those famous letters written nearly two centuries ago: "*Medicus est vir bonus, peritus medendi*;" that is, the physician is a good man, skilled in healing. But the definition does not seem broad enough for the day, since there are good women skilled in healing. Colleges for the exclusive education of women in medicine have been established, while in several institutions co-education of the sexes is authorized. Though this important change has occupied only the usual life of a generation, some of the gentler sex have won just distinction as medical practitioners, and as medical writers and teachers. While I do not express approval of this movement, honestly doubting woman's fitness, as a rule, for the medical life; and while I believe the experiment can meet with only

partial success, let all honor be given the faith and heroism of those women who have engaged in it and opened the way for its fair and free trial.

The effort for the medical education of women seems but the beginning of a great movement which seeks to reverse the laws, customs, and precedents of ages, and in some of its aspects to disregard the lessons of physiology and hitherto accepted teachings of theology. Every one must admit that the success of this movement promises good, but will not the attendant evil be greater? By all the loving reverence I bear unto woman as I have known her in the sacred relations of mother, sister, wife, daughter; by all the heroism of woman's patience in suffering, sorrow, and self-sacrifice I have witnessed; by all her tender, affectionate care in sickness; by all her helpful sympathies, strengthening men for the rude battle of life, comforting them in defeat, and inspiring new hope and braver effort; by all the precious, powerful influences the strong and dutiful mother exerts upon the child's mind—woman, man's first, best religious teacher, fashioning, molding the plastic character, making impressions that abide so that no tornado of fierce passions, no black wave of sin can utterly destroy them, but when the tornado and the wave have spent their fury, these reveal their saving power; by all the purity, the peace, the love, the sanctity of a well-ordered home, where woman wisely rules, let me ask why new duties must rest upon her. Can she ever grasp a nobler scepter? Will the fierce turmoil of political life, the sometimes angry contests of the forum, the solemn duties of the pulpit, the exposure to all inclemencies of the weather and fatigues of the night, the trying responsibilities and sudden emergencies of medical practice, enlarge her usefulness, give her greater power for good, and make her any happier? Nature made her man's companion and help-mate, not his competitor and rival, and centuries of social custom and of civil law have confirmed this act. Woe be the day! I verily believe, when this order of nature is overthrown. *Pro aris et focis* may yet be the fearfully significant rallying cry of the great mass of men and women, hitherto

silent spectators of this aggressive movement—a movement which excites in many thoughtful minds anxious fears lest its final success be social disorder, and the weakening, if not disruption, of family bonds.

But, returning from this digression—a digression which seemed natural, if not necessary, in the present condition of the times, as the University of Louisville has no “prudes for proctors or dowagers for deans, and sweet girl graduates with golden hair”—the definition of a physician which has been given, a good man, skilled in healing, need not be enlarged for the purposes of the present discourse.

But what is a *vir bonus*, a good man? De Quincey has remarked that splendid is the most abused word in the English language; and it might with equal justice be said that good is oftener used, if not more abused, than any other adjective. The politician calls a ticket good which carries with it such weight of wealth to be unscrupulously used, or of respectability, or so much of political management that the election is sure. A road is good, a field is good, music is good, fire is good, an act is good, a bonnet or a book, a pie or a poem, a sandwich or a sermon, a caricature or a character is good. Surely good can not mean essentially the same in all these applications.

Charles Kingsley has beautifully sung :

“Be good, fair maid, and let who will be clever;
Do noble things, not dream them all day long.
So making life, death, and the vast forever
One grand, sweet song.”

When Walter Scott was dying he called his son-in-law, Lockhart, to him and said, “My dear, be a good man, be a good man; nothing else can comfort you when you lie here.”

A favorite philosophy of the day, endeavoring to find a so-called scientific basis for the principles of right and wrong, teaches that acts are called good or bad according as they are well or ill adjusted to ends. This teaching would have us believe in a common meaning of the word good, whether applied to things animate or inanimate, whether applied to

human beings, to animals, or to acts. Thus the road is good that leads the traveler soonest and best to his destination; the dog is good that hunts well or is watchful; sermons and sandwiches are good that are suitable for the purposes of sermons and sandwiches; the girl or man is good whose acts are well adjusted to ends. The utilitarian theory of morals ably upheld by Bentham and Mills comes before us, somewhat modified in form, with the indorsement of Herbert Spencer. This genesis of morality, this explanation of goodness can satisfy very few. Virtue must rest on higher ground than accomplished ends and pleasurable sensations.

Let us turn from this great light of English philosophy and see how much higher the conception which some of the wisest of ancient philosophers had of good men and of good. Cicero, in the *Tusculan Disputations*, says, *Quid dicam bonos, perspicuum est: omnibus virtutibus instructos et ornatos cum sapientes, tum viros bonos dicimus*. That is, good men are instructed and adorned with every virtue and are wise.

Socrates speaks to us through Plato: "You have often heard me say that the idea of the good is the object of sciences. If we know not this idea it will avail us nothing to know all the rest. As eyes which should be unable to turn from darkness to light without turning the whole body, so the organ of intelligence ought to turn with the entire soul from the sight of that which is generated to the contemplation of that which alone is, and of that which is most luminous in Being, and have we not called that the Good? It is even said that the Good is the cause of things known and of knowledge. And to render this ultimate *agathon* yet more definite it is exhibited with a fixed and individual personality. The object of the particular sciences is said to be to facilitate the contemplation of the idea of the Good, thus synonymous with reality itself; and this essential goodness is described as the happiest of all beings, and whom the soul ought evermore and in every way to contemplate."

Plato declares that "philosophy is only another name for religion; philosophy is the love of perfect wisdom; perfect

wisdom and perfect goodness are identified; the perfect good is God himself; philosophy then is the love of God."

Coming to modern times, we hear the sage of Königsberg saying that the sublimest objects of contemplation are the starry firmament without, and the moral law within. We listen to Hutcheson, teaching moral philosophy at Glasgow, as he tells us of a *moral sense* as distinct as our sense of bitter and of sweet, soft and hard, light and darkness. The Bishop of Durham utters these weighty words: "Goodness is a fixed, steady, immovable principle of action." Lord Bacon never uttered wiser words than when he said of goodness, "This of all virtues and dignities of the mind is the greatest, being the character of the Deity, and without it man is a busy, mischievous, wretched thing, no better than a kind of vermin." An eminent writer of our own day tells us, "The principles of morality are an essential part of our being, authoritative, final, and in no way dependent either upon individual experience or upon external circumstances. To deny this, were to overturn the foundation of all morality."

The very word goodness conveys the idea of God, and of our possessing a spiritual nature; goodness, etymologically considered, means nothing if there be no God.

These two truths, so generally held by men, are rejected by some of the advocates of evolution, while others believing that doctrine still maintain them. Among the latter class of evolutionists is to be placed a distinguished Eastern clergyman, who has been recently traveling in some of our Western States lecturing upon the subject; he not only upholds the teaching of Darwin, but denies and derides much that he once proclaimed the truth. This brilliant but erratic man entered upon his ministerial career wearing a Calvinistic coat of the old Geneva pattern, but soon cast it aside for the ample folds and flowing robe of Arminius; subsequent changes in his theological vestments have been many if not great, and he now stands in life's evening unable to find any formulated creed in Protestantism, Catholicism, or Paganism, expressive of his religious belief, and

so has been compelled to start an independent line, running from Brooklyn to the Celestial City. Mr. Beecher, though unknown among the class of scientific investigators, without reputation or the least authority in the scientific world, asserts from the platform the truth of Darwinism, a theory which can never be proved and which possibly the twentieth century may class among the delusions of the nineteenth. On the other hand, last year a distinguished member of our profession, Dr. Constantin James, for many years the assistant of the illustrious Magendie, after a long study of the subject impossible for Mr. Beecher, states not only that Darwinism is false, but that it is the negation of science, the negation of philosophy, and the negation of liberty. The assertions, therefore, of the Brooklyn divine are not to be accepted as the last words upon this vexed question. Doubtless some of you remember reading that it was the contemplation of a statue of an illustrious member of our profession which led Coleridge to this strong utterance as to the simian origin of the race: "Look at that head of Cline, by Chantrey. Is that forehead, that nose, those temples, and that chin akin to the monkey tribe? No, no! To a man of sensibility no argument could disprove the bestial theory so convincingly as a quiet contemplation of that fine bust."

But after all that may be said in favor of Darwinism, the theist will still hold that "without God, evolution, continuity of nature, conservation of energy, or whatever other phrases happen to have currency for the hour, are mere sound and smoke, and imaginations of science falsely so called."

In one of the chapters of Carlyle's biography of John Sterling, a description of Coleridge is given; the great poet and philosopher is spoken of as a sublime man, who alone in those dark days had saved his crown of spiritual manhood. Surely the crown of your spiritual manhood will be saved even in these dark days, when men are tracing our ancestry back through monkey and fish, and down into the slimy depths of the sea. The moral law within is a witness for a noble origin, no matter through what channels the stream of life may have since flowed,

a witness too for a sublime destiny. Even pagans counted religion the highest development of this moral nature, and its absence the very climax of evil. Illustrative of the latter, listen to a part of Livy's description of the character of Hannibal; the passage is not less striking on account of its rhetorical construction than for the truth conveyed. The Roman historian, after speaking of Hannibal's virtues, adds: "Excessive vices counterbalanced these high virtues of the hero; inhuman cruelty, more than Punic perfidy, no truth, no reverence for things sacred, no fear of the gods, no respect for oaths, no sense of religion."

The moral law within asserts a law-giver, a supreme power. He is good, and the best human goodness is that which makes a man's character like his.

But what can I say to those who do not accept these conclusions, but deny man's spiritual nature and his future existence? The distinguished Professor John Gregory, of the University of Edinburgh, addressing medical students more than a century ago, remarked: "A physician who has the misfortune to disbelieve in a future state will, if he has common good nature, conceal his sentiments from those under his charge with as much care as he would preserve them from the infection of a mortal disease."

Again, listen to the words of our own loved and honored Dr. Holmes:

"O thou, if Reason waver at thy side,
Let humble Memory be thy gentle guide;
Go to thy birth-place, and if Faith was there,
Repeat thy father's creed, thy mother's prayer."

This is no time to abate one jot or tittle of moral law, and to build a system of ethics upon the shifting sands of utilitarianism, or find in mere pleasurable sensations government and guidance for our daily lives. Between the period of early childhood and attaining your majority, two presidents of the United States have been assassinated. Surely we dare not set aside the simple, solemn law of Sinai, Thou shalt not kill! Last week witnessed the end of the trial of a man in this State for an association of cruel crimes rarely paralleled in the history of the

race. Read your morning paper, and see how much space is given to the wickedness of human beings as shown by discovered crime, and then add the vast sum that is hidden from the keen-eyed, quick-eared newsman. Now, when man's perdition can be cheapened on every railway train and at every street corner; when people crowd a public hall and pay a brilliant orator to deny the Bible, and to cast the black veil of agnosticism over all hope of a future life, it is not safe either for society or for the individual to accept any low ethical standard.

I have spoken thus earnestly, not only because of the times in which we live, but because of the peculiar temptations to which you are exposed, and especially because of the tendency of medical study when restricted to the mere physical man. Cardinal Newman has wisely said, "A medical philosopher who has so simply fixed his intellect on his own science as to have forgotten the existence of any other will view man, who is the subject of his contemplations, as a being who has little more to do than to be born, to grow, to eat, to drink, to walk, to reproduce his kind, and to die. He sees him born as other animals are born; he sees life leave him with all those phenomena of annihilation which accompany the death of a brute. He compares his structure, his organs, his functions with those of other animals, and his own range of science leads to the discovery of no facts which are sufficient to convince him that there is any difference of kind between the human animal and the brute."

And now let me urge upon you the attainment of the highest moral excellence. The world's history presents many noble examples for your imitation, but only one in all respects perfect, and he was a healer of the sick.

A good man is, in the nature of things, virtuous. Indeed the word *virtus*, from which our word virtue comes, is derived from *vir*, a man, and means manliness, the very pith and essence of manhood, the sum of all the corporeal and mental excellence of a man.

The good man will do right, not because required by law or by custom, or because policy may dictate it, but because it

is best. Goodness fills his heart, and from that heart are the issues of life. The moral beauty of his character is formed of justice and charity. He is truthful; he can not pretend to a knowledge he does not possess, nor make promises which he does not intend to perform and believes he can. He does not stoop to court patients, bribing them to employ him by insincere courtesies, by social, political, or religious influence. He will not strut on stilts or crawl up to position. He is content with his true stature, and reaches place by the movements of a man, not by those of a reptile. He is grateful, and never forgets the hand that fed, or stings the bosom that warmed him into life. Often he will see the unworthy for a time at least advancing before him in the professional race, but that will not turn him aside from a just life. False friends, fickle clients, and ungrateful patients may try his heart, but the trial should be that of the gold in the fire of the furnace. He can not use the arts of the quack and of the empiric, vile harpies who prey upon the credulity, the pockets, and the lives of the unfortunate. While striving more and more, as my years go on, to be charitable in my judgment of human conduct, and tolerant of opposing opinions, the support sometimes given by persons of education, especially by clergymen, to quackery, tries that charity most sorely, and strains that tolerance to the utmost. I find it hard to trust the religious statements of a minister if his name is appended to the recommendation of a patent medicine, or if I know he believes and upholds a false system of medicine, represented it may be by some brazen-faced adventurer, who resorts to low arts and mean intrigue to get or to keep patients; one who, knowing his system is a fraud, uses a name* to delude

* Not less striking than the dishonesty of some homeopathic practitioners are the utter absurdity and essential nastiness of some homeopathic remedies. The American Homeopathic Pharmacopeia, Broerick & Tafel, New York, 1882, contains these delightful medicines: *anthracine*, *glanderine*, *gonorrhin*, *leucorrhin*, *syphilinum*, *buboinum*. Now let us imagine one of those dainty ladies who is afraid of the "strong medicines" she charges rational physicians with using, swallowing globules of *leucorrhin*, while her husband is possibly atoning for some of the sins of his youth by gulping teaspoonfuls of a solution of *syphilinum*.

people with, and then treats them, if need be, by the usual remedies of rational medicine. So far as my observation goes, irregular systems of medicine, especially homeopathy, that essence of absurdities and most impudent of shams, find their most devoted supporters in immigrants from New England. Without such support the life of these systems would be like the Psalmist's grass: in the morning it groweth up and flourisheth, in the evening it is cut down and withereth. That any intelligent man or woman can trust homeopathy after the description Dr. Holmes has given of it, is both strange and passing strange: "A mingled mass of perverse ingenuity, of tinsel erudition, of imbecile credulity, and of artful misrepresentation, too often mingled in practice, if we may trust the authority of its founder, with heartless and shameless imposition."

However, if one system of imposture dies another takes its place as long as credulity on the one hand and unscrupulous avarice on the other remain on the earth. The good man witnesses the wrong, but can not bring all to the right.

The good physician recognizes the fact that his calling is a benevolent one. While he ought to seek and have a just reward for his services whenever the party is able to give it, yet he will often have the poor for his clients, and his only recompense will be their prayers and blessings, and above all, the consciousness of having done his duty, and in a coming day he may hear a voice saying, "Inasmuch as ye did it unto the least of these, ye did it unto me."

Need I add among the qualifications of the good physician, that he is a gentleman? Obedience to the golden rule lies at the foundation of the gentlemanly character. Family, wealth, or station can not make a gentleman; it is the outward manifestation of a pure heart, a kindly, sympathizing nature; or as the late Dr. John Brown, whose touching story of "Rab and his Friends" is forever a part of household literature, has said, "The word manners means literally nothing else, and ought never to mean any thing else, than the expression, the embodiment, the pleasant flower, of an inward *mos* or moral state."

Awkwardness of manner may arise from neglect in early training, from the character of associations, or from natural timidity; but if a man be a gentleman in his heart, this awkwardness will be overcome, and at worst it can be better borne than the affectation of gentlemanly conduct, artificial manners, tricks of speech, and self-assumption. A gentleman is gentle in ways and words; he is careful of the sensibilities of others, knowing them from his own sensitive nature; always courteous, kind and sympathetic, his presence in the sick room is a benediction, while he inspires the sufferer with new strength and hope. Caliban should never be permitted to study medicine.

Passing now to the brief consideration of the second qualification of the doctor, this good man must be skilled in healing. Skill implies knowledge, and readiness in its application. The knowledge required is that of man and of therapeutic agents. The study of man in his psychical nature belonged to the philosopher, while his physical nature has been assigned the doctor. Need I insist upon man's dual nature? The more one considers this question the plainer it is that the outcome of denying man a spiritual being is the denial of God, or, as that wise philosopher Henry More put it, "No soul in the microcosm, no God in the macrocosm."

Now the arbitrary division of man, one part given to philosophy, the other to medicine, is unwise; the physician should study man both in his psychical and physical being; and I trust the day is not distant when psychology will be placed side by side with anatomy and physiology in the medical course. Even if nothing more were accomplished by this new medical study than mental discipline, the gain would be great. To learn how to think, how to reason justly, is essential for the doctor. That admirable man and most accomplished physician, the late Dr. Churchill, once remarked to me, as the name of Coleridge was mentioned, "Coleridge taught me how to think. The study of his 'Aids to Reflection' has been of the greatest benefit to me."

It has been observed that errors in diagnosis, the recognition

of disease, that which lies at the foundation of successful treatment, in probably the majority of cases, do not arise from the failure of observation, not in the coarser exercise of the senses in getting at the physical facts, but in the finer motion of the intellect failing to use the facts aright in combination, comparison, and conclusion.

One of the great errors sometimes made is that of regarding the problems of medicine less complex than those of law or theology, or admitting a sort of instinctive solution without the slow process of reasoning; and therefore the doctor does not need a mind so well disciplined, so completely furnished with knowledge as the lawyer or the clergyman needs. This error results from the fact so many enter their professional studies without suitable preliminary training, and so many are successfully engaged in the practice of medicine who have failed alike to equip themselves fully by either preliminary or by professional study. But the community in which they succeed is at fault; the doctor is in no small degree the reflex of the people among whom he lives, and by whose suffrages he succeeds. Let us enlarge the area of medical study, let the aspirant for professional honors study mind as well as body, and the public will learn to place a higher and juster estimate upon the qualifications of a physician. The fact that many diseases are characterized by disordered mental manifestations, and that other affections may be caused or cured through the mind, are further important arguments for the study of philosophy. Schiller, who for a brief time was a doctor, has said, "It is a fact that joy can quicken the nervous system more effectually than all the cordials of the apothecary, and can do wonders in the cure of inveterate internal disorders denied to the action of rhubarb, and even mercury."

Sick from sorrow, or from fear, dying of a broken heart, cured by faith, conquering physical prostration by the will, are expressions of truths familiar to every physician. With the higher development of the race, forces acting upon the spiritual element of man will play a more important part in the etiology and ther-

apeutics of disease, and the physician of the future may not be omniscient of drugs, the coarser weapons of his calling, but he will know how to evoke the omnipotence of the spirit, where need is, to govern matter.

Finally, the study of psychology will counteract the injurious results, so well set forth by Cardinal Newman, arising from the exclusive attention to man's physical nature.

The physician must not only know man, but also all means for the prevention and for the cure of disease. Skill in the application of remedies comes chiefly with careful observation and wise experience. On the one hand is the disease, and on the other the remedy; the physician is the mediator, bringing them in relation. He is liable to error on either side, mistake the malady or select the wrong remedy. Constant study and careful observation at the bedside increase knowledge and the readiness with which it is available in the treatment of disease, and thus the practitioner becomes, if he wisely uses his opportunities, more and more skillful.

How vast the range, how many the means for the cure or preventing disease offered the rational physician! Thank God, true medicine does not, like some of the petty sects which have wandered from it, build a castle in the air upon some floating half-truth or some silly delusion. It is not a mere sham, a creation of to-day; it is a living truth, strong with the growth of centuries, and growing still as the light of science grows. From Hippocrates down through the long line of famous successors, it challenges the world for greater, nobler, more philanthropic men. Need I mention such names as Harvey, Jenner, Sydenham, Boerhave, Pinel, Simpson, and a host of others:

"Tongues of our dead not lost,
But speaking from death's frost
Like tongues of fire at Pentecost."

Have any or all of the petty sects, these mushrooms that grow up in the darkness from the damp soil of ignorance and superstition and then rot and give place to other stools for toads, accomplished for the race what Sydenham, or Harvey, or

Jenner, or Pinel, or Simpson did? All the medical sects might perish, and they would hardly take with them into deserved and disgraceful oblivion the name of a single man who by the suffrages of the world would be called really great.

The rational physician will employ in the cure of disease all agents which experience, observation, reason, or physiological experiment has proved valuable. He draws his therapeutic means, some from earth's minerals, many from her abounding flora, rarely nowadays from her fauna; he makes air and water his ministers; he lays his hand upon the subtle forces of nature, light, heat, and electricity, and compels them to do his bidding. Nay, more, he evokes the secret forces of the soul, awakens faith, stimulates hope, strengthens a weak will, arouses a slumbering conscience, gives reason a higher power, sends the current of thought into new channels, and thus, as it were, re-creates the spiritual for its power over the material.

So far as the mere *materia medica* is concerned, the physician will wisely confine himself mainly to those remedies which are official. The enterprise, sometimes possibly the cupidity, of manufacturing druggists is so great that new preparations and new remedies are constantly being thrust upon the profession. Now confusion worse confounded enters into therapeutic results when so great a variety of agents is used by different practitioners. There can be no common analysis and comparison when cases are so differently treated, no ultimate truth established by this mass of individual experience.

Again: the multiplicity of medicines in prescriptions, or what is called poly-pharmacy, is to be avoided. You can count on your fingers, I had almost said of one hand, the remedies which you will find most frequently and uniformly useful. No medicine should be given unless a definite end is sought, and it is believed the remedy will accomplish it without detriment to the patient. Our medicines are not sugar-of-milk nothings, for amusement or for deception; but they are generally positive powers; and of few of them can it be said they will do no harm if they do no good. Finally, the old counsel, *tuto, cito, jucunde*,

ought ever to be in your minds in the selection of therapeutic means.

And now, my brothers in the medical profession, you go forth upon your high mission. Go, bearing answer to the *misereres* of the children of earth, to stand at the gates of life and of death; to relieve the pain-stricken; to heal disease; to soothe suffering; to make men, women, and children healthier, happier, stronger, better; to comfort the dying and to console the sorrowing. Let no familiarity with the afflictions of your fellow-beings make you cold and unsympathetic; let your heart be forever a fountain of charity, kindness, and love, and, like the heavenly Una, you will make sunshine in many a shady place. Do not hesitate, if need be, and if acting in all sincerity and truth, to point the eye growing dim in death to that Cross which is, for all who look, the symbol of salvation.

Increase your professional knowledge by daily study of the best books, and by reading some of the best medical journals, adding to your medical library as means permit, despite the oft-repeated disparagement of book-knowledge and the undue value given experience by some of those who, having had but a poor preliminary and professional education, spend the intervals of practice in trading horses and talking politics. Were I to select the two men most eminent in the medical profession, the one in surgery, the other in practice—the men held in the highest honor, and nearest and dearest to American physicians—they are the men who all their lives have been and who still are most diligent students, Samuel D. Gross and Austin Flint, both of them, as you know, once professors in this school. Let the lives of these great men be founts of inspiration welling through all your being and lasting all your lives.

Go heartily and hopefully, faithfully, earnestly, lovingly to your chosen duty, each one working out the noble ideal of a good man skilled in healing, so that when your steps descend to the westering sun the evening may be serene as you look back upon a life of good deeds, the world made better because you have lived and labored in it. And may I not, without trenching

on another's office, utter the hope that you will look forward too—look forward to the blessed land whose inhabitants never say they are sick, and where God wipes all tears from their eyes. Good-bye, good-bye.

SECONDARY PUERPERAL HEMORRHAGE.

BY W. M. FUQUA, M. D.

I deem it worth while to report the following case of secondary puerperal hemorrhage, from the fact of the importance of the subject, its comparative rarity and gravity, and the paucity of our literature relating to it. Prior to seeing the case in question, I was only familiar with what I had seen once before, and what had been written by Dr. R. Barnes, of England, and the elaborate essay of Prof. Theo. Parvin before the American Gynecological Society in 1880. Recently Dr. Mundé, of New York, reported a very interesting and highly instructive case before the Academy of Medicine in that city, and mentions the fact that a fair account of this grave occurrence is given by Barker, Winckle, Playfair, Spiegelberg, and Helfer. These two cases are all I have seen. The first one, which finally succumbed, occurred in my early professional life, and made a lasting impression on me. The result was probably due to some growth within the body of the uterus.

December 15, 1882, was called at 10 o'clock at night to see Mrs. W., who had been delivered of twins two weeks previously. Found that she had risen from her bed, and was carefully assisted to an invalid chair, with a view of having her bed readjusted, and for the purpose of ablution and syringing out the vagina. Up to this time she had not so satisfactory a getting up as in her former births. She is twenty-nine years old, and the mother now of six children. Her labors have always been comparatively short and natural, placenta always found

resting in the vagina, and removed as soon as the funis had been severed. In this last birth the placenta was removed, being gently adherent to the lateral fundus. Hemorrhage was slight, and soon ceased after giving an additional dose of fluid extract ergot.

After getting comfortably arranged before the fire, she became conscious of losing blood rapidly from the vagina. Her husband, Dr. W., bore her at once in his arms to the bed. She was very pale and exsanguinous, pulse scarcely perceptible, breathing slow and sighing, with dimness of vision. An examination revealed the vagina dilated with clots and fluid hot blood. Clearing all this away as rapidly as possible, I then threw into the vagina and uterus water as hot as she could bear, which was followed by a sponge tampon saturated with ferric-alum solution, and crowded well against the os uteri. Fluid extract of ergot in dram doses was directed every hour until uterine pain ensued. The bandage which encircled the abdomen was tightened, foot of bed was elevated, and after giving one dram of Hoffmann's anodyne left her for the night.

On the following morning, after drawing off her urine, a more careful examination was made with the speculum. There had been but little bleeding during the night. Was much surprised to find a slight rent in the anterior lip. The organ was considerably swollen and tender, with endometritis. Rectum was filled with fecal matter. Slight sanious discharge ebbed away with perceptible odor. After rinsing out the uterus and vagina with carbolic solution, I then injected the ferric alum and again introduced the tampon. Temperature 102°, pulse 128. Bowels were relieved with an enema of cold water. Twenty grains sulph. quinine were directed to be given during the day. Ergot continued once every four hours. In the evening urine was again drawn off and tampon removed.

After this there was no more hemorrhage. On the morning of the 18th expressed herself as feeling decidedly better. Had a good night, and passed urine without difficulty. Pulse 120,

temperature 101°. The bowels, which refused to move without an enema, responded well to the following pill:

R Co. ext. colocynth, gr. xxxvj;
 Podophyllin, gr. iij;
 Ipecac., gr. xij;
 Ext. nux vom., gr. iv.

M. ft. pill No. 12. Sig. one at night.

From this time the patient gradually improved. Her system was toned by means, first, of aromat. sulph. acid, with co. tr. bark, and finally by the elix. iron, strychn. and quinine. The lochia ceased thirty-five days after parturition, and involution seems to have been satisfactorily accomplished. The rent in the cervix slowly healed, and now no vestige of it except a slight notch remains.

HOPKINSVILLE, KY.

ON THE EXTERNAL USE OF LACTOPEPTINE.

BY GUIDO BELL, M. D.

The practical value of pepsin falls greatly behind its supposed or theoretical value. This is partly due to the means by which it is obtained, partly to the combination in which it is given. Pepsin has been used externally for carcinoma, but with doubtful success. I will report a case of chronic ulcer where lactopeptine has fulfilled all the requirements of a curative after all other treatment had failed.

O. H., a delicate boy, two years old, whose father had died of consumption several years ago, received a wound between the third and fourth toes, last July, from a puncture by a hayfork. Under the treatment of a druggist the wound healed very slowly until the boy was able to attend school in the fall, though the wound was not entirely closed. Eight days after, the boy "caught cold" and had severe pain in the wound, which now enlarged and began to be covered with a lardaceous membrane, which was thick and closely adherent, and gave to the

wound the appearance of a large, irregular pink hole with a bluish surrounding. The wound was very irritable; it was an erethitic-atonic ulcer.

I first applied fomentations of hot chamomile tea. For a few days the membrane seemed to yield, and the treatment was continued for two weeks, then fomentations of flax-seed meal and slippery elm were substituted. After a two weeks' trial, iodoform was used once daily for eight days. Next nitrate of silver, then compound tincture of benzoin, both of which latter increased the pain excessively. Warm applications of a solution of sugar of lead were tried. During the whole time diluted carbolic acid was used daily as a wash, and quinia and Fowler's solution were given for a couple of weeks against a supposed malarial influence.

After two months' treatment the wound was unchanged, except it was perhaps more irritable. At this stage I thought that pepsin might possibly destroy the parasites which infested the parts. I happened to have a sample of lactopeptine in my pocket, which I sprinkled over the wound, being well aware of the difference between pepsin and lactopeptine. I applied the lactopeptine twice a day for three days, when healthy granulations appeared on one place, and within ten days the wound was perfectly clean.

The loss of substance was considerable, and it took three weeks more for a full cicatrization, which is now nearly cartilaginous.

Pepsin has been used in dentistry in caries of the teeth, but I do not know with what result.

I have tried lactopeptine in two cases of necrosis of the bones of the hand. The result in both cases was remarkably good, but such wounds heal as well sometimes under almost any treatment.

INDIANAPOLIS, IND.

INDIRECTION IN THERAPEUTICS.

BY JAS. F. HIBBERD, M. D.

Theorem: We know of no medicine that exercises its curative agency by directly seizing upon the pathologically active elements of the tissue which is the subject of the morbid change, and by virtue of its immediate influence restoring such altered tissue to its normal status, and such elements to their physiological activity.

Our knowledge of the therapeutic virtues of the medicines and appliances we use in the management of pathological conditions reaches us through two principal channels, viz., the concurrent clinical experience of many observers, and, secondly, the conclusions of special investigators who have devoted their energies to experiments for the express purpose of elucidating the powers of certain drugs, and this chiefly through demonstrating their action on man or other animals in the physiological state.

It is only necessary to point to the vast majority of drugs prescribed to illustrate the first of these propositions, it being the rule that the profession rate the healing qualities of medicines and appliances by the testimony to the good they have wrought in the hands of those who have administered them, and watched their success at the bedside of the ailing. Examples of the second proposition are found in the experiments of Magendie thoroughly and completely establishing the nature and extent of the power of strychnia; of Bernard accomplishing similar ends touching curare; and of Brunton demonstrating the like concerning casca.

The first of these methods of acquiring knowledge is known as the empirical method, and the second as the scientific method. But indeed the one method is precisely as scientific as the other, science being in fact such a scanning of the processes of nature, such observation of cause and effect, such an analysis and syn-

thesis of things done by nature, that we reach conclusions that are truth pure and simple. A dog poisoned to death by sulphocyanide of potassium has the irritability of his muscles completely destroyed, but the importance of this scientific fact in no wise depends on whether it was ascertained by clinical observation or was the result of pharmacological experimentation.

It is, therefore, a point of secondary interest how we establish the virtues of our medicaments, but it is of prime importance that we know of a certainty that the virtues we ascribe to remedies are positively possessed by them. And in this behalf the value of the two methods in determining this point is infinitely in favor of pharmacology, so far as it is applicable, because there are so many factors in the clinical observations of the effects of medicine calculated to obscure or mislead, that the vision of him who is most conscientiously determined to see and report nothing but the truth may be eclipsed by intervening objects that he knows not of. It is this faulty clinical observation and the faulty reasoning founded thereon that has kept the medicinal armamentarium in a state of constant revolution since all recorded time, and which at this moment presents us in our pharmacopeia a thousand remedies where we should have but a hundred, and outside the pharmacopeia with five thousand where it should have but fifty or less.

There can be no rational doubt that if we knew precisely how and where medicines exert the influence they exercise over disease we should have removed one of the most rugged stumbling blocks from the path of correct, complete, and reliable clinical observation of the effect of our remedial agents.

Perhaps at this time there is no intelligent physician who does not recognize that pathological activity is nothing more nor less than a misplaced, unbalanced, deficient, or erratic activity of the normal vital forces in normal tissues and organs, and that the rôle of therapeutics is to correct this wrong activity of the vital energy, and to restore the disturbed tissues and organs, so far as may be, to their healthy condition. The language we use in expressing these convictions, as a rule, implies that the medica-

ments we prescribe seize on this wrong vital activity and suppress it, and coming in contact with these altered tissues and organs reconduct them to their normal estate.

This certainly is not the correct view in the great majority of cases, probably in none, and it is the animus of this paper to contribute to the knowledge that the medicines and appliances we use in the management of diseases perform their mission by indirection, or in a negative way. But before entering upon this leading service it seems indispensable that a few moments be devoted to a preliminary statement of a pair of easily demonstrated biological facts that underlie our conception of the whole scheme of physiological and pathological activity and our command over them.

No matter whether we regard the present status of man as having been attained by a special act of creative wisdom or by an evolution gradually ascending through the eons from a simple cell of protoplasm (a plastid of the new school—and in either case it was the exercise of omniscient omnipotence far away beyond the limits of the finite human comprehension), we recognize clearly enough that the phenomena of life are now maintained by the operation of certain general fixed laws. Every activity of the human frame—and the same of every living thing, animal and vegetal—is the result of some excitant that inspires to the special activity. For example, the conjugation of the human spermatozoön and ovum under appropriate circumstances proves an excitor to the initiatory movement of development of such plastid into an independent human being, the result of each step in this progress being the sufficient excitor to the next step in the order of development.

Under the new dispensation the plastid is the lowest organized animal existence—an amœba, for example—and all more complicated organizations, including man, are but greatly expanded and highly differentiated amœbæ, and the activity of these more complex beings is but the amplified activity of the amœba. But the bioplasm of these organisms, simple or complex, is not active without an excitor, and, as we have seen,

the conjugation of the two reproducing plastids of human origin under adequate environment is the effective excitator that begins the development of a man, and it is quite clear that in both the developing and adult man it is the appropriation of food under suitable surroundings that maintains his organization; the ingestion of the food is the excitator of digestion, and following this comes the entire train of absorption, assimilation, secretion, disintegration, and excretion, each succeeding step in activity having for its excitator the result of the preceding step, the whole continuing through a foreordained scheme of metabolism for about one hundred years, by which time the condition is reached in the normal metamorphosis wherein the living granules and filaments of the plastid are no longer excitable, and the residue of the once buoyant man ceases to live, and his bioplasm is transformed into the elements of which he, in common with all around him, is composed. And all this in obedience to an unknown and unknowable attribute of matter impressed on it by its creator.

This is physiological activity, the result of physiological excitators, but there may be an excitator that is not physiological, and it will induce an activity that is not physiological. The cavaliers who started the civilization of Virginia at Jamestown, thinking to have a meal of fresh greens, ate the leaves of the stramonium, and instead of exciting healthy nutrition of the brain with normal mental operations, the leaves proved to be a poison, a pathological excitator, that induced pathological activity, i. e., vertigo, delirium, and narcosis. So, too, the good housewife used, by mistake, arsenious acid instead of soda to freshen her biscuit, and had, in lieu of health-giving bread that would excite the physiological activity of the stomach, a poison, a pathological excitator that brought pathological activity, that is, vomiting, purging, and inflammation. A man dwelling on the border of a swamp inhales with the atmosphere inspired a something known as malaria which, acting as a pathological excitator, brings about presently a paroxysm of intermittent fever.

There are fair illustrations of instances where a pathological excitator suppresses, overrides, or so deranges the normal or phys-

iological activity as to produce what is denominated pathological activity, or disease.

This statement of fact and argument brings us to admit, without reservation, the truth of these two biological propositions, viz: (1) All physiological activity in man is the result of a physiological excitor; (2) All pathological activity is the result of a pathological excitor. The result of the former is health; the result of the latter is disease; and all health is thus induced, and all disease is thus excited.

Perhaps, to facilitate our further studies, it will be best to here announce another great fundamental law of living structures, viz., that where a pathological excitor has interrupted physiological activity, the withdrawal or suspension of such pathological excitor is at once followed by the suppression of the pathological activity and the re-establishment of the physiological activity, so far as altered structure will permit.

Now let us apply these conclusions as basic supports for a theory of the method by which our medicines and appliances are alleged to cure disease.

A surgeon is called to see a girl with an inflamed arm, and, on inquiry and inspection, finds that, three days before, she fell and ran into her arm over the deltoid muscle a broken needle with a bit of thread in the eye. He extracts the needle and thread and the inflammation subsides. The threaded needle was the pathological excitor, on the removal of which the pathological activity ceased and the disturbed tissues regained their normal condition. Nothing was done to cause the tissues to heal, simply the pathological excitor was removed and the physiological activity was restored.

Carving a peg from a bit of hard wood, a boy allowed his keen barlow to slip and cut a longitudinal incision in his thigh, two inches long. The surgeon strapped the lips of the clean incision in apposition, and permitted the physiological activity to regain its sway.

When the broken ends of a fractured bone are adjusted and secured the bone is left to its own resources for restoration.

There is no healing virtue in splints and bandages any more than there was in the strips of adhesive plaster that closed the incision. In each case what was done was to prevent further influence of the pathological excitor, in the one case by closing and fastening the incised flesh, in the other by adjusting and securing the ruptured bone. Nothing was needed except this to excite physiological activity; nature was all-sufficient for that duty when unimpeded. Listerism does not seek to increase the healing energies of nature; it simply exerts to prevent interference with the natural energy.

By a not uncommon oversight a young man has eaten toadstools when he fancied he had partaken of mushrooms. They are poisonous, and the doctor promptly injects into the arm, subcutaneously, one sixteenth of a grain of apomorphia, with the effect of causing the dislodgment of the offending matter. Nothing is done to the stomach, where the mischief is brewing, except to cause it to reject the pathological excitor.

Lumbricoid worms in the intestines of a child have created fever and presently caused spasms. The physician does not address his medicine directly either to the temperature or the spastic center, but with a few grains of santonin causes the evacuation of the vermin, the pathological excitor, and all is well.

Sharp gripings in the abdomen cause the patient to cry out and writhe in pain. Possibly with, probably without, definite knowledge of the cause or the precise seat of the suffering, the medical man injects, hypodermically, a quarter of a grain of morphia, not that it may search out the tissue involved and act on it, but that it may go to the pain-center in the nervous structure and so alter it that pain is no longer recognized.

A hand is to be amputated, and the anesthetic is not applied to the flesh that is to be invaded by the knife, but to the brain where is seated the ability to recognize the pain of the cutting, and this ability is for the time being abrogated.

The lung is inflamed, and it is sought to arrest the diseased action, not by medicaments applied to the alveoli to prevent the plastids from further alteration and to restore what is already

wrong, but, it may be, by the exhibition of veratrum to arrest abnormal action of the heart sending blood too rapidly to the disordered organ, of opium to cut off pain which has become a pathological excitor, of quinia to neutralize the known or fancied disturbance of malaria, and of sundry other medicaments for the purpose of securing, in one way or another, that rest for the whole frame, and especially for the disordered viscus, which is so important a factor in the restoration of all inflamed tissues.

Accepting for the nonce the broad doctrine of the bacterian origin of specific diseases, we shall find that our theory of indirection will apply to the known results of medication in these disturbances as readily as elsewhere.

In intermittent fever we administer quinine which acts as a bactericide to this particular bacterian germ of disease present; in acute rheumatism, salicine that reaches and destroys the organized poison that creates the disorder; and in syphilis, mercury and potassium iodide which plays a similarly fatal rôle to the germ of this affection. In these cases it is the bacteria that induces the fever, the arthritis, and the protean tissue changes respectively, and it is the bactericide virtues of the several drugs in destroying these organisms and thus effacing the pathological excitor, in which the curative agency is found, and not in the direct control they exercise over the pathological activity itself.

In typhoid fever, measles, and smallpox we must wait and watch the full natural career of the genetic bacteria, because we do not know of a germicide of either of these germs that, being administered, would not endanger the welfare of the patient.

In this wise we might cover the catalogue of diseases whose characteristics are sufficiently defined to make them distinctive, and find each and all, when successfully managed, to have been treated through this sort of indirection; and we might scan the materia medica, and where we have accurate knowledge of the therapeutic worth of a drug we shall find, on scrutinizing its *modus operandi*, that its good work has been manifested through this same channel of indirection.

Reviews.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children. By various writers. Edited by RICHARD QUAIN, M.D., Fellow and late Senior Censor of the Royal College of Physicians, Member of the Senate of the University of London, Member of the General Council of Medical Education and Registration, Consulting Physician to the Hospital for Consumption and Diseases of the Chest at Brompton, etc. London: Longmans, Green & Co. 1882. 1 vol. 8vo. Pp. 1816.

A work of imposing dimensions and of encyclopedic scope. The preparation must have entailed on its distinguished editor an immense amount of labor. The writing of such a book by one man would have been impracticable. The progress of medical science is so rapid that much of the contents would have been antiquated before the whole work had been completed. Dr. Quain recognizing this fact, wisely secured the co-operation of competent writers, most of whom are well known as able investigators, authors, and teachers. Not a few are among the most illustrious that the medical profession of Great Britain can boast. Paget, Aitken, Bastian, Murchison, Jenner, Holmes, Broadbent, Matthews Duncan, Grainger Stewart, Spencer Wells, Ferrier, Roberts, Brunton, Sir Henry Thompson, are names that give assurance of the high character of any work with which they are connected. The editor has not confined himself to the British Isles in selecting his collaborators. The contributions of Prof. Bäumlér, of the University of Freiburg; Prof. Binz, of the University of Bonn, Brown-Séquard, of Paris; De Zouche, of New Zealand; Echeverría, of New York; Jos. Jones, of New Orleans, tend to give a cosmopolitan character to the work and to make it more thoroughly representative of the status of medical knowledge at this time.

One finds some difficulty in correctly estimating the character and objects of the work. The title-page calls it a dictionary, yet it is less and at the same time more than this. It is not a *dictionary* in the same sense as Dunglison's, being far less comprehensive, and at the same time treating most subjects mentioned much more fully than is ever done in a mere "catalogue of words." The intention appears to have been to give a description of the various diseases in alphabetical order, including their etiology and anatomical characters; the symptoms, course, duration, and termination; the diagnosis and prognosis; and, lastly, the treatment.

The only work similar to this which we know is Littre's *Dictionnaire de Medecine, de Chirurgie, de Pharmacie, de l'Art Veterinaire et des Sciences qui s'y rapportent*. As will be seen from the title, the latter includes a much larger number of topics. It is invaluable as a work of reference, an imperishable monument to the knowledge and industrious research of its great author, who is now no more. But the last edition of Littre was issued in 1873, and in a science so progressive as medicine ten years destroys some supposed and adds much true knowledge.

General Pathology comprehends articles on the origin, character, and nature of disease. General Therapeutics includes articles on the various classes of remedies, their modes of action, and the methods of using them. Hygiene is considered in articles on the causes and prevention of disease, the agencies and laws influencing disease, the construction and management of hospitals, and the nursing of the sick. The diseases peculiar to women and children also receive full attention. A marked and excellent feature of the work is the detailed accounts of the most important mineral springs and baths of Europe. Strange to say, however, the numerous and powerful mineral waters of the United States are hardly mentioned. Surgical Diseases are also included, but not systematically or with fullness. No definite plan seems to have been followed in determining what subjects were to be admitted or left out. Thus, Cantharides and Chloral are mentioned, but Physostigma and Resorcin are not. Morphia

is mentioned, but Apomorphia is not. Cholesterin is mentioned, but Cholemia and Cholesteremia are not. The article on Gall-Stones, in many respects excellent, is signally defective in regard to therapeutics. The old Durandé's remedy, which in this country has been long since superseded by other and superior ones, is recommended; but muriate of ammonia, cholate of soda, phosphate of soda, and the succinate of the sesquioxide of iron are not even alluded to, nor is the necessity of regulating the diet and the distance between meals mentioned. Exophthalmic goitre is noted, but Exophthalmos is not. The articles on Inflammation, on the Periodicity of Disease, on Skin Diseases, and many others are remarkably well written, and show unusual grasp and power of condensation.

Nearly three columns are devoted to Perinephritis. The disease is well described, but an important symptom has been omitted, viz: shortening of the costo-iliac space on the affected side. The article on Tendon Reflexes is very good, and is perhaps the most satisfactory account of this subject accessible to the general reader. In perusing the articles on Diseases of the Tongue, one misses leucoplakia, to which Prof. Ernest Schwimmer called attention at the London International Medical Congress.

But of the imperfections which have been noticed, very few are of vital importance, and do not materially detract from the great merit of this enormous volume. And as an offset to these, let the reader but think of the good company he will meet in the work. Let him turn, for example, to Bacteria, the vast and invisible hosts that so swarm around, and which are believed to play such an important part in the etiology of various diseases, and learn from Bastian the essentials of our knowledge of this omnipotent and almost omnipresent foe. He wishes to have the last words upon Bright's Disease, and Grainger Stewart tells him; or upon Chorea, and the knowledge of Broadbent is at hand; or upon Climate, and J. Henry Bennet wisely teaches him. Contagion is a subject of inquiry, and John Simon makes full answer. Eustace Smith teaches him as to the Disorders of

Dentition; Pavy as to Diet. Allbut instructs him as to the Treatment of the Disorders of Digestion; Maclean speaks of Intermittent Fever. Florence Nightingale contributes a paper upon Nurses and Nursing; Reginal Southey one on Personal Health. Diseases of the Pleura are fully treated by Roberts.

This Dictionary of Medicine was a great idea. That it has assumed material form is due to the rare insight and tact, the great scholarship, the untiring energy and industry of its distinguished editor. The work is most creditable to Dr. Quain and his eminent collaborators. No one interested in the diffusion of sound medical learning will fail to welcome it to his study or to give it an honored place within easy reach of his reading chair.

Some of the contributors have gone to their long rest since the work was commenced. Among them were men whose names are as familiar in this country as in England—Parkes, Lockhart, Clarke, Murchison, Cormack, Tilbury Fox, and others. Their names are cherished with honor and affection by the American profession, and the value of the present volume is enhanced by the fact that their articles in this dictionary were, in most instances, their last contribution to medical literature.

How We Ought to Live: A Practical Guide, written in plain, intelligible language, for the Preservation of Health and the Attainment of Longevity; designed to enable all so to live that they may reach old age in health and comfort. By JOS. F. EDWARDS, A.M., M.D., author of *How a Person Threatened or Afflicted with Bright's Disease Ought to Live*; *Dyspepsia, and How to Avoid It*; *Constipation Relieved without the Use of Drugs*; *Malaria*; *Vaccination*; assistant editor of *Medical and Surgical Reporter*. Philadelphia: H. C. Watts & Co. 1883.

This work, as the title implies, is devoted to popular hygiene, and by simplicity of diction, with a careful avoidance of technical terms and expressions, the author has made a book which will doubtless find many appreciative readers among the laity.

The plan adopted by the author, in the preparation of the work would seem to be logical if not scientific. It was as follows: The names of a large number of intelligent aged citizens from all parts of the United States were first obtained, and to each of these was addressed a circular letter of inquiry with sixteen practical questions to be answered. These questions were framed much in the style of those seen in life-insurance applications, and were so worded as to secure from each correspondent a reasonably full history of all the incidents of his long life which could in any way touch the subject in hand. This letter called forth a liberal response, and the facts thus obtained, with judicious quotations from eminent sanitary writers, and a store of wisdom gained through the author's own experience as a medical practitioner and a student in hygiene, make up the greater part of the volume.

About forty of these letters are published in full in an appendix and make an attractive feature of the work. The ages of the writers are from seventy to ninety years, the majority being eighty years and upward.

From a somewhat hasty reading it would appear that the circumstances which have proved most conducive to good health and longevity with the venerable writers of these letters have been a healthy ancestry, industrious habits, regular hours, temperance at the table, the scrupulous avoidance of alcohol and tobacco, no more than moderate indulgence in coffee and tea, and a hopeful, cheerful temper of mind.

Though the body of the work was evidently intended for the non-professional reader, the appendix at least may be studied with profit by the physician and sanitarian.

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Manual of Gynecology. By D. BERRY HART, M.D., F.R.C.P.E., etc., and A. H. BARBOUR, M.A., B.Sc., M.B., etc. Vol. I. With eight plates and one hundred and ninety-two wood-cuts. New York: William Wood & Co. 1883.

The profession of this country is to be congratulated upon the republication of Hart and Barbour's Manual. The first volume contains three hundred and thirteen pages, and is presented by the publisher in quite a handsome form.

The work is divided in two parts, the first devoted to the anatomy, physiology, and method of examination of the female pelvic organs, and the second is occupied with diseases of those organs. In considering the diseases the authors begin with affections of the peritoneum and connective tissue, then comes pelvic hematocele, which is followed by affections of the fallopian tubes and ovaries, while affections of the uterus conclude the volume.

One of the most striking features of this work is the great number of illustrations given. One of our medical friends, the late Dr. George C. Blackman, used to tell us that doctors liked pictures, and, if this be so, surely they will be delighted with this manual. Many of the illustrations are original, while some others are altogether new in a work on gynecology. Most of them are good, but a few deserve the opposite adjective. We have heard an American work criticised, and by very high authority, for its indecent pictures, and the nude cadaver represented in plate 4 of this volume is just as indecent as any illustration in the gynecological work alluded to. Moreover, it is altogether an unnecessary and a repulsive exhibition.

In the many speculums represented we do not find Simon's, which is certainly an improvement upon Sims's, and also better than Battey's, of which an illustration is given.

When we come to the part occupied with diseases we find this remarkable statement, that pelvic peritonitis and cellulitis are always combined. Such assertion contradicts the investigations of Bernutz, and we believe is an error. Passing to the

subject of ovarian tumors, we find their pathology very well given. The diagnosis is hardly as full as one might desire. Six or seven pages do not seem enough for so important a topic.

Laceration of the cervix is well presented. The authors, though recognizing the value of Emmet's operation in suitable cases, justly say that "it has been performed in numbers of cases where it was not called for." It is to be hoped this observation will help to awaken protest against the frequency with which the operation is done. One gentleman who is quite expert, and has been quite successful in operating, some months ago remarked to the writer that the operation had become quite a fashionable one where he resided. One woman heard that another had had "her womb sewed up, and so she wished to have hers treated in like manner." That fatal results have followed the operation can not be disputed, and that in some other cases the operation has produced no benefit is also true. Further, the existence of a laceration involving the entire vaginal cervix upon one side does not necessarily cause sterility, menstrual disorder, or leucorrhea. Two ladies under our own observation have had such laceration, and there was no uterine disorder save the retroversion for which we were consulted. They each became pregnant and gave birth to a living child. Surely it would be a piece of meddlesome carpentering to make an operation upon either of these ladies.

In some of the cases operated upon where the laceration was trifling, or where no one but the operator could discover it, and benefit was alleged to have resulted from the operation, may not this be regarded as being from the influence upon the mind rather than dependent upon a physical cause?

The manual of Hart and Barbour will be highly appreciated by American physicians. It deserves a place in every library.

We are glad to see, in the excellent collection of books making Wood's Library for the current year, a translation of Fritsch's *Krankheiten der Frauen*, which will also prove of great value to the American student of gynecology who may not happen to have the original.

Clinic of the Month.

THE HEATONIAN METHOD FOR THE PERMANENT CURE OF HERNIA.—W. H. Heath, M.D., of the U. S. Marine Hospital Service, furnishes the Annual Report of the Supervising Surgeon-General, Marine Hospital Service of the United States, for 1882 :

The first of a series of seventeen cases was operated upon in the spring of 1880, at the United States Marine Hospital, Bedloe's Island, upon a seaman who was convalescing from another malady, and about to leave the hospital, and with a result so encouraging as to enlist further interest in the procedure. Since that period, seventeen cases, selected, have been operated upon.

Variety. Oblique inguinal hernia, reducible; two cases double, and all acquired mostly by heavy work.

Character. Scrotal enterocele, varying in size from an egg to a small fist.

Duration. One of two years, one of three years, eight of five years and over, one of seven years, two of ten years, two of twelve years, one of seventeen years, one of twenty-three years.

The abdominal openings were in all cases large, and the pillars decidedly thinned. The precise size of the apertures can not be given. In all, however, the index finger could be readily passed into the canal.

All had been wearing trusses; in two the protrusion being retained with difficulty. All were seamen and laborers, occupations calling for hard physical work.

Result. Two failures, two improved, one accident, twelve discharged as cured.

The failures were complete failures, though other circumstances contributed to the result; largely, in one case, a nurse's carelessness, and in the other, want of co-operation of the patient, which is very necessary.

The action in question was when the areolar tissue of the cord was penetrated and some of the irritant fluid deposited there, causing abscess. This was in a case really unfit, having albuminuria, a fact

not known at the time of operating. It exemplifies that more care is necessary in operating than at first would appear, and that the selection of cases is as absolutely necessary as in any other surgical procedure.

The cases improved were decidedly so, the protrusion descending with less ease, being much smaller in size, and retained by truss without difficulty, which before was not the case; the patients also complaining less of the sense of weakness and "goneness" characteristic of the difficulty.

The cases designated as cured were those in which, after a reasonable period (as long as they could be kept under observation), a return or descent of the hernia was not apparent, where no impulse was obtained by reasonable effort and examination, and the sensations of the patient were of strength and firmness in the region. All were discharged, instructed to wear a bandage as a precaution as long as possible, to be reasonably careful for a time, and, if possible, to report any recurrence. Four of the cases were seen by me some months after, where no return of the defect had occurred, although, from the nature of their vocations, a fair trial had been sustained. Nothing has been heard of any of the others.

Here the question of the permanency of these results arises, and beyond what has been stated I can add nothing.

In view of the very general opinion held, that a return of the infirmity at a subsequent period occurs in most cases reported as cured by any operation, this must remain a question until more cases are reported and followed up.

In the method by injection, different substances are injected. Where the sac is attacked a distinction is to be observed as to the Heatonian method, which is likewise an operation of injecting, but which differs from others entirely in principle and the structure involved. The author of the procedure inferred, and I believe correctly, that the tendinous structures were the principal ones in fault in this condition, and to them he directed his efforts to restore their proper strength and power of resistance. He sought to bring this about by subcutaneously wetting the parts with some fluid which would produce contraction and excite a degree of irritation to cause the effusion of plastic organizable lymph, the danger of suppuration ensuing not being great from the want of vascularity of the tissues in question. Whether this view is correct or not, Dr. Heaton, after trying various fluids, finally adopted the preparation of white-oak bark, and was successful in curing very many cases.

Experience shows that a favorable result may be looked for most confidently in recent hernia in young persons under twenty-one years of age, or in congenital cases and of moderate size. The older the defect, and the larger the openings, the less likely will be the desired result. Cases should be selected who are in good health generally for obvious reasons, and as much as possible the co-operation of the patient secured. Neither is it to be supposed that a single injection will be sufficient in a large majority of cases, particularly *when they are of long standing*; on the contrary, they should be repeated, which can be done with safety, until the desired impression is made upon the parts. These injections can be repeated indefinitely at suitable intervals, and with a fluid of more irritating property.

SULPHUROUS ACID, ETC., IN SCARLATINA MALIGNA.—Dr. K. N. McDonald furnishes a paper on this subject to the *Edinburgh Medical Journal*, from which we extract the following :

To be successful in most cases of scarlatina maligna the treatment must not only be promptly and vigorously, but also intelligently applied, and that when so carried out the worst cases need not be despaired of. In order, however, to attain this end, it is necessary for the medical practitioner to enter minutely into details in giving his instructions, and to see that they are carried out to the letter as far as practicable.

The moment the throat begins to become affected, I administer to a child of five or six years of age ten minims of the sulphurous acid with a small quantity of glycerine in water every two hours, and I direct the sulphurous-acid spray (strength, two to four drams to the ounce of water, according to circumstances) to be applied every three hours to the fauces, about twenty squeezes, and when that can't be done, to hold the instrument about six inches from the mouth and use it for a few minutes at a time. The acid solution must be recently prepared, as when it is kept for some time in water it takes up an atom of oxygen and becomes sulphuric acid. It is of some importance to bear this in mind, as the efficiency of the acid treatment depends entirely upon its composition.

At the same time I administer a mixture containing from three to five grains of chlorate of potash with seven to ten minims of the tinct. ferri perchlor. in glycerine and water, more or less according to age, every four hours. I further direct a strong solution of permanganate of potash (two drams or more to six ounces of water) to be held in

readiness for laving the lips and mouth several times in the day to arrest the formation of the dark sordes which collect about these parts, some of which would be swallowed, if possible, each time the lotion is applied, gargling being out of the question in young children.

Sulphur should also be burned in the sick-chamber three times a day at least, by placing flour of sulphur upon red-hot cinders on a shovel, and walking about the room with it, thus diffusing the sulphurous-acid vapor through the apartment, until the atmosphere becomes a little unpleasant to breathe.

In cases of an adynamic type, when medicine can't be swallowed, the spray and sulphurous-acid vapor must be entirely relied upon. It is only in the very worst cases that I employ all the above remedies; for, as a rule, the sulphurous acid alone is quite sufficient to combat most cases of scarlatina anginosa, but when there are white patches at the back of the throat I invariably administer steel and chlorate of potash as well, and both patients and their friends have frequently remarked to me, under such circumstances, that an improvement took place after the first dose of the medicine had been swallowed.

Of course, while vaunting the above remedies so highly, I do not forget that other details have to be attended to, such as the importance of fresh air and its free circulation, when that can be attained, the constant presence of disinfectants in the room, such as carbolic acid, chloride of lime, Condy's fluid, etc., the proper disposal of all discharges, the burning of rags containing sputum, etc.

HYPOGASTRIC LITHOTOMY.—At the Société Chirurgie M. Monod read a paper on abdominal or, more strictly, hypogastric lithotomy. Three times he practiced the operation, and of the three patients but one succumbed. The first case was that of a man, aged fifty-six, who in his youth underwent the operation of lithotrity, which was very successfully performed, and for years he had no further trouble in the urinary organs. However, for some time before his admission into the hospital in August last, all the symptoms of stone returned; and having rapidly increased in gravity, he decided on placing himself under the care of M. Monod, who, on examination, found the calculus to be voluminous. Lithotrity being recognized impossible, the already eminent surgeon, after dilating the bladder by means of a large injection of water containing boric acid, and its displace-

ment forward by distension of the rectum, proceeded to cut down on the stone a little above the pubis. The bladder reached, it was found that the calculus was encysted and intimately connected to the walls of the urinary receptacle, so that it was with great difficulty the foreign body was detached, and not until the adherences were broken down and the stone fractured into four pieces. The bladder was then washed out with a current of water, and two drainage-tubes placed. During the whole time of the operation the *cul-de-sac* of the peritoneum was kept pushed back, so that it in no way interfered with the operator. The cure, though a slow one, was nevertheless very satisfactory, and M. Monod congratulated himself that he did not attempt perineal lithotomy, which, under the actual and revealed circumstances of the case, would have presented greater difficulties and been attended with considerable danger. The second case was that of a man aged sixty-seven. The operation was practiced in the same manner—dilatation of the bladder, distension of the rectum by means of an air-bag, lithotomy above the pubis, extraction of the calculus, and drainage. The results were not satisfactory; from the outset the patient showed bad symptoms, and he succumbed on the fifth day. The third case was that of a young man, aged twenty-eight, who had a calculus since his youth. Lithotrity was tried, but failed from the extreme hardness of the stone. The bladder was being distended by an injection of the same solution, as in the other cases, when it suddenly gave way under the pressure, to the no little consternation of all present. After some hesitation as to the conduct to be followed, the intrepid operator decided on continuing, and the operation was completed with facility. Although the bladder was ruptured, the cure was no less satisfactory than in the first case. In concluding his remarks, M. Monod said that the operation had been performed in sixteen cases, of which eleven were successful. M. Verneuil said he practiced the operation himself in a very unfavorable case, and yet with complete success. It was that of a man with double hernia, very voluminous, and a very large prostate and a kidney affection. M. Verneuil, after extracting the

stone, sutured the bladder, which gave him some trouble, so that in future he was determined in these cases to renounce sutures. Several other members followed, expressing themselves as favorable to the operation in question.

PRURITUS OF ANUS.—In the course of a lecture on diseases of the lower bowel, by Mr. Edward Hamilton (Dublin Journal), the treatment of Pruritus of the Anus is spoken of as follows:

Almost every morbid condition of the rectum may be followed by this intense itching, and until its lining membrane is brought into a healthy state local treatment must be wholly ineffectual. It may be caused by mere errors of diet—spiced food especially containing capicum, game in a high state of decomposition, and various kinds of shell-fish. I have seen some very obstinate cases which were the result of gout, and I have known it to be produced by prolonged sitting on an office stool covered with American cloth—at least there was no other way of accounting for it—and changing the seat was followed by quick subsidence of the symptoms. In children it usually indicates ascarides in the rectum, and in the female it may indicate uterine disorder. Having removed the cause we usually find the distressing symptoms rapidly disappear. This may be aided by various local applications—lead lotion, milk of bitter almonds, infusion of tobacco; hydrocyanic acid, one dram in lime water, eight ounces; ice-cold water, or the warm bath in the more obstinate cases; tar ointment, or the ointments of the metals—lead, zinc, and nitrate of mercury, in equal parts. You have to bear in mind a number of such remedies, as you are obliged constantly to vary your treatment, and what you find successful in one case will fail you in the next you have to treat. When the disease has become chronic the irritation and friction will give rise to a thickened and fissured condition of the verge of the anus which will demand active treatment, such as the application every second day of a ten-grain solution of nitrate of silver. In order to be accurate you must not confound two distinct conditions which may occur here—*pruritus* and *prurigo*. The first is not essentially a disease of the skin, but a morbid condition of innervation, and any appearance of eruption is caused by the mechanical friction. In *prurigo* there is from the first an eruption of papillæ, accompanied by smarting and itching. The treatment is pretty much the same, but *prurigo* is a local disease. *Pruritus* is the local manifestation of remote disease.

BREAKING STRAIN, OR TENSILE STRENGTH OF THE UMBILICAL CORD.—Dr. Neville read a paper upon this subject before the Obstetrical Society of the Academy of Medicine in Ireland (Dublin Journal of Medical Science), founded upon one hundred and twenty-five experiments made by him on the fresh cords of full-time children. Having explained the method of making these experiments, in which only the twelve to fourteen inches of the cord nearest to the placenta were tested, he stated his conclusions as follows:

In one hundred cords, from which the blood had been allowed in great part to escape before subjecting them to strain, the average tensile strength amounted to 12.5 pounds; one cord bore a strain of 27 pounds; nine cords a strain varying from 20 to 25 pounds; eighteen of from 15 to 20 pounds; forty-eight of from 10 to 15 pounds; twenty-three of from 5 to 10 pounds; and one of less than 5 pounds. In the case of twenty-five cords tested without allowing any escape of the blood contained in them, the average breaking strain was found to be very little above 11 pounds, or nearly one and a half pounds less than in the other case. The cords belonging to males were found to have an average strength of 1.5 pounds more than those of female children; multiparity made no appreciable difference in strength. The strain was always gradually increased until the cord broke; and rupture was most commonly found to be first marked on the outer aspect of the cord where an umbilical vein projected in a varicose manner. Thin, straight, and wiry cords, possessing a comparatively small amount of Whartonian jelly, and whose surfaces were least marked by varicose projections, habitually bore the greatest strains.

The rather scanty literature on the subject was summarized, especially a paper by Pfannkuch (*A. f. G. Band. VIJ., Heft. 1*), who studied the effects of a sudden strain caused by the balling of the child's body, if delivered when the woman was in the upright position. Dr. Neville considered the question of a gradual drag as affecting inversion of the uterus. Assuming as conditions a strong funis abutting at or near the center of the fundus on a firmly adherent placenta, and a flaccid, pliable uterus, wanting in contraction and retraction, he thought improper tractions on the cord very likely to terminate in inversion. Inversion is a rare accident, because these conditions are rarely met with in combination, and because real fundal attachment of the placenta is particularly uncommon, notwithstanding text-book statements to the contrary.

MILK V. ALCOHOL IN THE TREATMENT OF INSANITY.—“The greater my experience becomes,” writes Dr. Clauston in the Annual Report of the Royal Edinburgh Asylum for the Insane, “I tend more to substitute milk for stimulants. I do not undervalue the latter in suitable cases; but in very acute cases, both of depression and maniacal exaltation, where the disordered working of the brain tends rapidly to exhaust the strength, I rely more and more on milk and eggs made into liquid custards. One such case this year got eight pints of milk and sixteen eggs every day for three months, and under this treatment recovered. I question whether he would have done so under any other. He was almost dead on admission, acutely delirious, absolutely sleepless, and very nearly pulseless. It was a hand-to-hand fight between the acute disease in his brain and his general vitality. If his stomach could not have digested and his body assimilated enough suitable nourishment, or if he could not have been taken out freely into the open air, he must have died. But to-day he is fulfilling the duties of his position as well as he ever did in his life. All acute mental diseases, like most nervous diseases, tend to thinness of body; and therefore all foods and all medicines and all treatments that fatten are good. To my assistants and nurses and patients I preach the gospel of fatness as the great antidote to the exhausting tendencies of the disease we have to treat; and it would be well if all people of nervous constitution would obey this gospel.”

TREATMENT OF GONORRHEA.—A rather large number of American, German, French, and English physicians have, as we see by reading through the many different foreign and domestic medical journals, of late been reporting very successful results in the treatment of gonorrhea by the *yellow* oleum santali. We learn that the remedy invariably puts an end to the discharge within two days, but to prevent a relapse it has to be continued for two weeks longer. From fifteen to twenty drops given three times daily is the usual dose, which may be administered on sugar or in gelatine capsules.

PARALDEHYDE: A NEW HYPNOTIC.—The actions of this drug were first studied by Dr. Cervello, of Palermo; and his experiments were made in the Laboratory of Experimental Pharmacology at Strasburg, under the direction of Schmiederberg. Professor Morselli, of the Royal Asylum of Turin, has in conjunction with Dr. Bergesis, the assistant medical officer, made an extensive series of observations with it. Its chemical composition is $C_6H_{12}O_3$; and it is a polymeric form of aldehyde. In physiological action it strongly resembles chloral. A dose of three grams procures quiet and refreshing sleep for from four to seven hours. It differs from chloral in its action on the circulatory system, strengthening the heart's action while diminishing its frequency. It has also a well-marked action on the kidneys, greatly increasing the flow of urine. The skin is not at all affected. The drug does not give rise to digestive disturbances, to headache, or to any other unpleasant symptom. Up to the present, Professor Morselli has used paraldehyde about three hundred and fifty times. He has found it a valuable remedy in mania, melancholia, and other nervous affections, as well as in the sleeplessness that accompanies acute bronchial catarrh, lobar pneumonia, and heart diseases. He believes that it will to a large extent take the place of chloral. (Brit. Med. Jour.)

TREATMENT OF PUERPERAL FEVER.—Dr. Biedert Hagenau reports twelve cases, all of which recovered. His worst cases were complicated with peritonitis, diarrhea and vomiting, aphtha, one with double pleuritis, and unilateral empyema. His treatment consisted in thoroughly washing out the vagina and uterus with a two-per-cent solution of carbolic acid, then passing a catheter to the fundus of the uterus, and again washing it out with a one-per-cent solution of acetate of aluminum. The catheter must be passed to the fundus, and the washing continued until the returning liquid is clear. This is to be done twice daily at the start; less frequently afterward. By this treatment cases are cured in course of a few days, and old cases change for the better. (Obstetric Gazette: *Deut. Med. Zeitung*.)

A METHOD OF TREATMENT FOR VARICOCELE.—Mr. W. D. Spanton writes to the *British Medical Journal* that for some time past he has used a subcutaneous ligature. A needle threaded with silk or catgut is passed between the vas deferens and spermatic vein, and a loop left on one side, and the free ends on the opposite. A second needle, similarly threaded, is then passed in the opposite direction between the vein and the skin, and withdrawn, leaving a loop as before. One of the threads is then passed through the loop on each side, the ends drawn together and firmly tied. The threads are then cut off short, and the ligature sinks away from the skin punctures. The small wounds made by the needle heal quickly, the ligature remains, and consolidation takes place in the ordinary way. The advantages of such a subcutaneous method are obvious, and the plan described is simpler and quicker than that of attempting to pass a single thread round the vein.

LARGE DOSES OF ARSENIC IN CHOREA.—This little girl, ten years old, about to be discharged, owes her recovery from chorea to the administration of arsenic. We had to give the remedy freely before the disorder gave way. The case was one of sub-acute general chorea, of moderate severity, occurring in a weakly, nervous girl. We began with five minims of Fowler's solution of arsenious acid, thrice daily, in an ounce of water. In three days the dose was increased to ten minims; in three days more, to fifteen; in three days more, to twenty; and so on until she was taking thirty-five minims of the solution thrice daily. When this last dose was reached, the choreic movements, which before had been gradually subsiding, entirely ceased, and a little vomiting warned us that we had reached the first and most usual physiological action of our remedy. We then withdrew the drug for two days; after that time we gave it again, in fifteen-minim doses, for a few days more, when we gave it up altogether, and the child remained well. You have seen me treat many cases of chorea in this way with similar success. The dose of liquor arsenicalis in chorea, as laid down in text-books, is too small.

Chorea is often an obstinate affection. The more chronic cases frequently pass from doctor to doctor, and go through long courses of medicaments, without benefit. Arsenic, freely and properly given, rarely fails. If a case of chorea come to you, and you learn that arsenic has been given and has failed, give it again in large doses. You may cautiously increase the dose of liquor arsenicalis far beyond the limits of the text-books with the best results in chorea; in this way you may usually cure cases which smaller doses of the remedy would not affect. (Medical Gazette.)

CALX SULPHURATA.—This remedy, better known under the incorrect name of sulphide of calcium, is thus spoken of by Dr. Piffard, in the *Journal of Cutaneous and Venereal Diseases*: “My own experiences, extending over a series of years, lead me to the inference that the drug is an aplastic or resolvent of great energy; that its tendency, when given in sufficient doses, is to break down and dissolve, rather than build up and restore. This theory of its action is in perfect harmony with the observed effects of its administration, and if it be the correct explanation it will lead us to a multitude of useful applications of the drug. In other words, it appears to me probable that calx sulphurata will be found capable of fulfilling the rôle that was assigned to mercury thirty and forty years ago—that of a general resolvent in inflammatory exudations, chronic infiltrations, and possibly also in some forms of neoplasm.”

DR. BERGER speaks of his experience with the keratoscope of Placido. The reflected image from the cornea has been used long ago to detect anomalous curvatures on it. But the apparatus of Helmholtz and Coccus have been too difficult to handle. Placido's instrument consists of several black and white concentric rings with a central opening. In a short time it came into favor with the oculists. Dr. B. prefers Green's well-known star-like figures for detection of astigmatism after a careful comparison on one hundred and sixty-two eyes.

THE PROPER WAY TO GIVE ACONITE.—Dr. William Murrell makes some judicious observations on the correct plan for administering aconite so as to secure its most advantageous action. He observes that aconite acts best in small doses frequently repeated. Many practitioners get no good from aconite because they do not know how to use it. The dose of the tincture recommended in the British Pharmacopeia—from five to fifteen minims—is absurdly large, and no one with any regard for his patient's safety or his own reputation would ever think of giving it. The best way is to put half a dram of the tincture in a four-ounce bottle of water, and tell the patient to take a teaspoonful of this every ten minutes for the first hour, and after this hourly for some hours. Even smaller doses may be given in the case of children. The great indication for the use of aconite is elevation of temperature; the clinical thermometer and aconite bottle should go hand in hand. (Medical Record.)

DR. LANGENBECK reports a successful case of extirpation of the gall-bladder. He says many animals, for instance horses and elephants, have no gall-bladder; in some cases of men there was a congenital want of it, in others it was entirely shrunken, without any influence on the general health. After a T cut along the rectus muscle he incised the peritoneum, held back the colon, pressing it downward with a sponge, tied the ductus choledochus with silk, not catgut, and used the aspirator. The next day the patient was found smoking, and had an excessive hunger. He was cautiously nursed, and made a speedy recovery. This operation was undertaken after every other treatment of the chronic cholelithiasis had failed, and the patient was a mere skeleton and the victim of morphia. This is the simplest of all laparotomies. (Translated for the AMERICAN PRACTITIONER from *Berlin. Klin. Woch.*)

To disguise the odor of iodoform Dr. Scherk recommends 0.05 acid. carbol. to ten grams of iodoform, and about a drop of peppermint-oil. (*Ibid.*)

PHTHISIS AND AGUE.—The antagonism between phthisis and ague is relative rather than positive; that is, phthisis occurs more frequently in regions where intermittents are not endemic; and, *vice versa*, we can not say, where intermittents are dominant there phthisis is not met with. Both diseases, too, may occur simultaneously in the same person. Dr. Vieta, writing in the *Genio Medico-Quirurgico*, describes his experience in Azagra, in the kingdom of Navarre. The situation of the town is very damp and low; it is surrounded by the rivers Ebro and Ega, and formerly these constantly overflowed their banks, inundating half the town. The streets were unpaved, and full of holes, in which the water lodged. In the outskirts much hemp was cultivated, and there were innumerable stagnant pools, in which the hemp, after being cut, was macerated. Severe intermittent fevers were very prevalent. Now the streets are paved, the rivers embanked so that they are confined to their proper channel, and hemp is not so much grown, market-gardening being more profitable. The town has become much more healthy, and intermittents are no longer endemic. The few cases of ague which occur are simple, without the marked paludic cachexia and tendency to relapse, and yield readily to treatment. But with this diminution of intermittents, there is a decided and marked increase in the number of cases of chronic affections of the lungs, especially phthisis, which was formerly all but unknown in this locality. Dr. Vieta does not attempt to account for this antagonism. He attributes the phthisis to neglected bronchial catarrhs, and says that hereditary influences and diathesis play no part in its causation. He therefore hopes that, with improved hygienic means and knowledge, this also may be eradicated.

PROF. KROENLEIN, reporting ten cases of ileus due to different causes, says the lower end of the ileum can always be found in the right iliac fossa, and laparotomy is always justifiable in cases of ileus, especially when intussusception is the probable cause. In one of his cases the operation was not allowed; it

died. In eight cases he operated successfully; one case was cured without it (coprostasis). He opposes large injections; an anus preternaturalis is not so uncomfortable as is generally believed. He refers to an interesting case of Dr. Miriel. (Translated for the AMERICAN PRACTITIONER from *Letweizer Corresp. Blatt.*)

CHLORUM, bromum, iodium, bichloride of mercury, permangan. potass., and osmic acid kill spores and are true disinfectants, others only arrest their development, but are the very remedies in surgery. Dr. Boillat made some experiments with the albuminates of phenol, chloride of zinc, sulphate of copper, perchloride of mercury, and found that spores in contact with the albuminate of phenol were developed abundantly, even iodoform did not arrest it. (Translated for the AMERICAN PRACTITIONER from *Med. Chirurg. Centralblatt.*)

DR. HONSELL has performed eighty-one tracheotomies with thirty-one recoveries. He used the knife to divide the tissues between the muscles, then the directory and the forceps, pushing the artery to above or underneath, and freeing and clearing the field. He examined the trachea closely for false membranes before he introduced the tube, which always was the Leiter's hard-rubber No. 23. Death occurred generally before third day. The tube remained in the trachea once only four days, usually from eight to fourteen days. Good appetite is a favorable sign. The after-treatment was nearly always met with some disturbances. Dr. Honsell recommends artificial nutrition in cases of paralysis. (Translated for the AMERICAN PRACTITIONER from *Memorb.*)

DR. WEISS says one of the main causes that tracheotomy lacks success is the pernicious secretion between the tube and the mucous membrane. (*Ibid.*)

Notes and Queries.

KENTUCKY STATE BOARD OF HEALTH.—On the return of the senior editor of the AMERICAN PRACTITIONER from Las Vegas Hot Springs, New Mexico, where he had gone some weeks before to try the baths for a wearying attack of rheumatism, he found, among the exchanges of the AMERICAN PRACTITIONER which had accumulated in his absence, that several had expressed themselves in very plain terms concerning the inefficiency of the Kentucky State Board of Health. Though still confined to his bed he felt that he might, among the visitors who were kind enough to call to see him, possibly learn the state of professional sentiment, in this part of the State at least, concerning the board. An occasion for doing so soon offered itself in the persons of two medical friends who happened to be at the same time in his room. One was from the city, the other from the country. The subject of the Health Board soon came up and led to the conversation which he here transcribes. He gives the names of the physicians as *Town* and *Country*. The questions which underlie the dialogue between them are, however, of such moment to the profession in Kentucky that they will have future notice in other ways in these pages. For the present the editor contents himself by introducing to the public his friends, *Town* and *Country*, who will now speak for themselves.

Country. I have just been reading the articles which have recently appeared in the Louisville Medical News, the New York Medical Record, and the Sanitary Engineer, criticising the Kentucky State Board of Health, and I am free to say they were altogether uncalled for.

Town. Why so?

C. To begin with, it's no business of the New York jour-

nals what we do in Kentucky. A public organization whose members are actively, conscientiously, and at great personal inconvenience, sacrifice, and danger, engaged in preventing the recurrence, checking the march, and lessening the mortality of disease, certainly deserve the support of all good people.

T. Is that a description of our board?

C. It is, for a fact; and this attempt to diminish the labors of the board simply because those labors are silent and unseen is a very small business. I can tell the New York sheets—the Kentucky journal must already know it—that if there is any one thing which Kentuckians feel that they are in duty bound to resent, it is criticisms of their horses, whisky, women, and State officials. This they will not stand. A Kentucky official would have you believe that he is the anointed of the Goddess of Liberty. He says, “I am the State,” which is understood, by that part of the Commonwealth which uses it, to mean, in somewhat more extended terms, that if “you ask for an account of my work or a statement of my stewardship, or criticise, no matter how respectfully, my methods, or suggest, no matter how mildly, that they may perhaps be improved, it is rank treason, and you do so, sah, at your peril!”

In estimating the work of any organization one should keep in view the objects for which the organization was created, its means for doing its work, and the amount of work performed. And just here is where the first error upon the part of these self-constituted critics comes in. They assume that the Kentucky Board of Health was created for the purposes of similar boards elsewhere. Now there couldn't be a greater mistake than this. The Governor intended no such thing. It so happened that, at the time our board first saw the light, health boards were the fashion. There was a kind of inundation of them, so to speak. There seemed to be no getting along in a State without a health board. The woods were full of them. It is true their fate was, in most instances, that of the grass in the Psalmist. But that's no matter. Now the Health Board of Kentucky was the outgrowth of this fashion. That's the

way it came. The Governor never intended it to be useful in any general way. He expected it to be ornamental only. If he did n't, why did n't he make some provision for its support? No, sir! an ornamental appendage to the Executive's retinue was what the board was made for, and what it has been.

T. You interest me; but for the life of me I can not see where the ornamental part comes in.

C. I will repeat. Do you suppose, I say, that if the Governor had expected the board to do any thing he would have withheld the wherewithal to sustain it; that he would have sent it out to do battle against disease and not furnished it the sinews of war; that he would have exposed its members to the pestilence abroad, and at the same time to famine at home? Not a bit of it. No, sir! He intended to use the board as he does volunteer aides-de-camp—for parade only!

T. Why, I had understood there was a salary attached somewhere to the person of the board.

C. A salary! that's good! A pittance, you had better say; and a miserable one at that. Why, the annual appropriation for the board is but twenty-five hundred dollars. Of this the secretary is allowed but fifteen hundred and fifty dollars, and out of this sum he is required to hire an office. The remaining nine hundred and fifty dollars is used for what the college-boy, in making up his accounts for home-consumption, calls "sundries;" say, in general terms, the traveling expenses of the board, junketing around, purchasing books, printing reports, delivering lectures, and—as I heard an envious fellow, a legislator from one of the mountain districts, intimate—to get an additional appropriation. Now, my valued friend from town, don't you know that with office-rent as high as it is in Louisville that when it is paid there's nothing left—to speak of—out of the fifteen hundred and fifty dollars? I hope you will understand now why I call the salary not a salary at all, but a pittance—a miserable pittance.

T. Then, if the board gets no pay, why do n't the members resign, and let us have a fresh deal?

C. And why should they resign? I'd like to know; they have never done any thing. Their worst enemy can't say they've ever done any thing.

T. You do n't mean what you say, do you? I thought the secretary of the board had delivered some lectures on sanitary matters in some town or other, and had made two reports, and that a member of the board had prepared a report on registration and vital statistics.

C. Oh, well, that does n't affect my statement. Three lectures and the same number of reports in five years does n't materially change matters. The number of "noughts" leaves the issue just the same, though the school-boy's puzzle puts it differently:

"But, sir, if Wanst Nought be Nothin',
Then Twice Nought must be Somethin',
For it's double what Wanst Nought is!"

T. And do these five or six works (?) make up the labors of the board as far as the public knows? Yet they cost the State a pretty large sum of money, did n't they?

C. The merest bagatelle—a nothing as it were. Look at the account as it stands between the board and the State:

		<i>Dr.</i>
By moneys paid by State from 1878 to 1883,		\$12,500 00
		<hr/> <hr/>
		<i>Cr.</i>
Office-rent (and salary!!),	\$6,000 00	
Junketing, including sundries,	2,000 00	
Three Reports, each \$333⅓,	1,000 00	
Three Lectures (or one Lecture three times), each \$1,000,	3,000 00	
Seven copies of Buck's Hygiene, purchased by order of		
the board for its members, \$15.00 each,	105 00	
Good will,	395 00	
		<hr/> <hr/> 12,500 00

[NOTE.—The board was organized in April, 1878, and its fiscal year does not end, therefore, for yet a few days, which would make Country ahead of time in his estimates by just that space—say a week.—ED.]

The cash—the little there is of it—is all right, you see. It balances. But there are things which can not be estimated by dollars and cents. Think of the value of the information which one report of the board contains! What an addition to our

knowledge of the outlets by which life escapes in Kentucky to be told that so many of its citizens die annually of "hæmorrhage," "congestion," "dropsy," "falling of the brain," and "delicacy"—especially the latter—and all this in one hundred and nine pages!

T. Are n't you rather hard on the member from Louisville?

C. I neither wish nor intend to be. He has done as well as you or I or any other doctor could have done with the materials at hand. By the way, did n't it strike you as a little odd that the remedy he suggested for faulty registration in Kentucky was to get better educated physicians here? I do n't doubt that it would prove a remedy. But who is to apply it? And how? And when? Whose head shall fall into the basket first? And once begun, who shall stop the murder of the innocents? Perhaps the member, who has been engaged for the last fifteen or twenty years in the educating business—in educating, may be, some of the very chaps who report "falling of the brain"—will enlighten us.

T. You have n't said any thing about the report of the member from Bowling Green, published in the *Courier-Journal*.

C. But I like the report—and I liked it the more because it was brought out in the *Courier-Journal*. You town doctors have awfully antiquated notions about appearing in the secular press. You never allow your names mentioned except in the medical journals. It is n't so with us in the country; we like to get in, you know. But the gentleman from Warren should have given himself pause before letting one of the largest professional cats—a regular tiger-cat, so to speak—out of the bag. I question the policy of telling the masses, at least, that doctors can not be expected to labor to prevent the spread of disease, because it takes bread out of their mouths. It is too near the truth.

T. Do you believe all these stories floating about of non-attendance at meetings of the board?

C. I am afraid they are true in the main. But, after all, there's a lot of human nature in doctors. They do n't like—

to paraphrase the language of the member from Warren—any more than other people, to quit their business, snatch their grip-sacks, and hurry off to distant places to attend the meetings of a board gathered for the discussion of matters which they know all about, and then get no other pay for doing it than their traveling expenses. It is hardly to be expected that under the circumstances they will answer with any great regularity at roll-call.

T. Then why do n't they stand aside for somebody who will?

C. You've got me.

T. Did you ever hear a description of a meeting of the board?

C. Yes, but I never thought it was true. I could n't believe that when the board met it was unable to do any work for laughing; that there was n't a member of it who could look another in the face without going off into guffaws at the thought of what they were—not doing. It's told that one member never could get to a meeting, either because he did not start, or because when he got the notice to attend he laughed so much he could n't tell the ticket-agent where he wished to go.

T. What then, as far as you see, is the necessity of the board? If none, how can it be gotten rid of? If it be needed, how made more efficient?

C. You can get rid of the Ornament only by changing the game. Just as long as "draw" goes on will the Health Board pose as at present, for if there is one thing a Kentuckian loves better than another it is "draw." He's raised on it, you know. And next to "draw poker" he likes to "draw" a salary.

T. But would n't it be good policy to increase the salary and lessen the size of the board?

C. The next legislature must decide that. Individually I am like my friend, the present governor, who said to me once, "I am always on the side of the doctors; any thing to help them along." So, whenever a brother chip asks me, I "hurrah for the old flag and—an appropriation" as lustily as though I was a member of the board. And, my friend, when you come to

reflect upon the total inadequacy of the means to the ends in all this health-board business, can you wonder that the two words " 'rah " and " draw " practically cover the entire work of the six members and one secretary during a period of five years. And is it not greatly to their credit that they have done " this—and nothing more " ? But I must go. Good day. Good day.

As the door closed upon the speaker the writer thought how differently things appear from different standpoints.

TWO PICTURES—THE GOOD WORKER AND THE BAD.—We copy the following graphic sketches of two classes of laborers common to the profession every where. They were made by Dr. Andrew Clark in a recent address :

In the work of the younger members of our profession I see, or at least I think that I see, greater care, patience, and accuracy in observation, a more rigorous fidelity in the record of therapeutical experiments, wiser caution in speculation, graver deliberation in judgment, a growing frankness in the confessions of oversights and errors, increasing severity in the sifting and testing of their own conclusions, a readier effacement of personality in the work, less unseemly eagerness for mere priority of publication, a deepened sense of the responsibilities of premature speech and writings, a rapidly abating bitterness in the conflicts of opposing views, a more robust and manlier spirit of scientific life, and less reluctance in making admission that there is no unconditional truth in the results of our inquiries—no finality in our finished work—no creed in medicine.

But, for one competent and conscientious worker there are ten incompetent and unconscientious, and who in divers ways hinder our progress and spoil our present possessions. Intolerant of the patient and painful toil of the true worker, acute in power of superficial observation, gifted with a certain showy versatility, quick at catching hold of new ideas, ingenious in guessing, crude in experiments, loose in therapeutic trials, hasty in speculation, strong in dogmatic assertions, accomplished in

the transfiguration and use of other men's work, finding what they want wherever they seek, unhindered by difficulties, facile in speech, ready in writing, thirsting for notice, such men, now, alas! not uncommon in medicine, beget papers so quickly that they can have no necessary relation to time, observation, or thought, and flood our literature with their unworthy if not unveracious lucubrations.

The favorite hunting ground of such men is therapeutics, and their favorite sport is the catching of new remedies, the putting of them to new uses, and the setting forth of their successful results. These men discern no difficulties and have few failures; they can illustrate their successes by scores of cases, and explain them by the most ingenious theories. There is scarcely any limit to the extent or the variety of their achievements; and, as they flaunt along in the fullness of self-satisfaction, they look down with pitying condescension upon those in the strait and narrow way, who conscientiously toil with small success in seeking after truth, but who nevertheless, missing the praise of men, find strength and solace in the sacred search.

COMMENCEMENT EXERCISES OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.—The forty-sixth commencement of this prosperous medical college occurred February 27th, at Macauley's Theater.

There were sixty-eight intelligent-looking young men sent forth to battle against the real and imaginary ills to which poor mortals are subjected, Hon. Isaac Caldwell, President of Board of Trustees, presenting them with their diplomas. In awarding the prizes, the first, the Yandell memorial gold medal, was given Dr. John Q. Taylor, of Kentucky; the second, a gold medal, to Dr. Samuel Ayres, jr., of Kentucky; the third, also a gold medal, to Dr. Travis Carroll, of Louisville. Among the undergraduates, the first prize, a galvanic battery offered by G. T. Craven & Co., was awarded Dr. C. M. Pusey. The second prize, a copy of Erichsen's work upon surgery, offered by John P. Morton & Co., was awarded Urban E. Marshall. The third prize, a

pocket case of instruments, offered by Arthur Peter & Co., was awarded K. W. Miller.

A well-written, well-delivered valedictory was given on behalf of the class by Mr. George W. Grimes.

Following Mr. Grimes came Dr. Parvin, who delivered the valedictory address upon the part of the faculty. His subject was "The Physician is a Good Man, Skilled in Healing." The address will be found complete in the Louisville Medical News for March 10, 1883.

The following is a list of the graduates :

Amis, John C., Ky.	Gore, Benj. E., Ky.	McCall, R. A., Miss.
Ayres, Samuel, Ky.	Grimes, Geo. W., Ky.	McClanahan, A. S., Ky.
Adams, Jas. A., Tex.	Graves, R. W., Tex.	McIntyre, C. W., Ind.
Bainbridge, C. H., Ohio.	Gholson, S. C., jr., Miss.	Pope, Geo. L., Ky.
Barkley, Chas. M., Ky.	Gallimore, W. L., Tenn.	Pope, Fred. W., Ky.
Beeler, David, Kansas.	Graves, Thos. P., La.	Rupert, Lualzo, W. Va.
Coleman, John R., Ky.	Garrett, Wm. M., Tex.	Radford, Wm. B., Ky.
Coleman, W. W., W. Va.	Grover, T. E. W., W. Va.	Shelby, P. R., Ky.
Crutcher, W. C., Tex.	Hall, John L., Tex.	Samuels, A. W., Ky.
Cook, Chas. P., Ind.	Hodges, John A., Tex.	Shields, Alex. M., Ky.
Clark, Tyler, Ky.	Hoya, Joseph T., Tex.	Taylor, John Q., Ky.
Cowgill, W. M., Ky.	Henderson, C. M., Miss.	Thomas, Jas. E., La.
Carroll, Travis, Ky.	Hughes, Thos. B., Ky.	Thompson, Wm. A., Mo.
Cloughly, J. F., M.D., Ia.	Hollis, L. W., Tex.	Veal, George T., Tex.
Condon, Frank M., La.	Heizer, Wm. J., Ky.	VanDyke, Jno. L., Tex.
Cartwright, H. P., Ky.	King, Chas. L., Tex.	Whitesides, L. L., Ind.
Darter, Isaac M., Ky.	Lipscomb, Wm. C., Tex.	Washburne, D. L., Ky.
Dunn, Thos. W., Ky.	Lindley, H. A., Ky.	Warfield, L. L., Tenn.
Elliott, John W., Miss.	Linn, Chas. P., Mo.	Wilcox, Jno. F., W. Va.
Edwards, C. J., La.	LaMaster, W. L., Ky.	Wallace, H. H., Ky.
Fallis, Capt. R. G., Ky.	Marchand, V. H., Ind.	Wells, Wm. H., Ind.
Foster, Horace, Ind.	Mitchell, F. A., Ind.	Williams, James, Tex.
Goodman, H. M., Ky.	McClelland, R. H., Tex.	

THE NEW YORK CODE.—Notwithstanding all the touching and beautiful talk in the New York County and State Medical Societies in regard to the matter of "humanity" and the "elevation of the standing of the profession," it would at first sight seem rather a significant fact that the new code agitation was entirely inaugurated by specialists, and that every man who has taken at all an active part in securing its adoption and prevent-

ing its repeal is a specialist. It is probably, however, only a curious coincidence that the specialists are the ones who must necessarily derive the largest amount of pecuniary benefit from consulting with all "legally qualified practitioners of medicine." Among legally qualified practitioners our new code friends in New York will, no doubt, be much pleased to learn that they may now have the opportunity of meeting in consultation the noble and good Dr. Buchanan, lately of Philadelphia, who, we are informed on excellent authority, is now a registered physician in their city, and who, having graduated from Moyamensing, as well as a medical college, must have had special opportunities of study and experience, which the profession and public ought not to be slow in availing themselves of.

There is one point, involving to some extent the matter of consistency, which the ordinary Philistine medical mind is not quite capable of satisfactorily comprehending. How is it that the very gentlemen who are the most energetic and persistent supporters of the new code are also those who are most clamorous for the higher education of the profession, and are the leaders in establishing innumerable post-graduate courses to this end in every department of medicine and surgery, when by this same new code any Tom, Dick, or Harry who can buy, steal, or study six weeks for a diploma, is placed on the same level as a graduate of Harvard or the University of Pennsylvania, who has spent a couple of years or more in the hospitals after receiving his degree? (Boston Medical Journal.)

DR. ENGELMANN ON THE MINOR FORCEPS.—The following is an extract from a letter from our friend, Dr. George J. Engelmann, of St. Louis, one of the most scholarly and accomplished obstetricians; the passage was not written for publication, but it is so valuable as giving the opinion and experience of one so well qualified to think and to act that we take the liberty of presenting it to our readers:

"I read with interest your article in the last number of the *American Practitioner*, and agree most thoroughly with you.

Those *vest-pocket* forceps, as you call them, are not only miserable and useless, but even dangerous things. I should compare them to a dull knife, which may be used with comparative safety, as it does not cut as badly as a sharp one, and when a small or superficial cut is to be made the *dull* knife will do it, and there is not so much danger as there is in the use of a sharp one.

"I have some experience—seeing quite a number of different styles, all very pretty and neat—of these little forceps. I thought I ought to try them, and finding one pair, very pretty and small, which I thought might prove serviceable, I bought it. Next day, Thanksgiving day, I shall never forget it on account of the cold dinner the little wretches—the V. P. F.—caused me. Fine, healthy lady, not a large child, good pains, every thing most satisfactory. As the head rapidly neared its exit, and a few more good pains would have expelled it, I thought now is the time for the V. P. F., as they would save the mother some ten or twenty minutes of suffering and allow me my dinner—this is what they are for—and to extract an additional fee, which they extract better than the head.

"I rapidly applied the little beauties, and was about to drag out the little man in triumph. I waited for the next pain and pulled with one hand, supporting the perineum with the other; baby would n't budge; pulled harder, no go; took both hands, no better; then I began to pull in earnest, would n't stir. I pulled harder; finally pulled for all I was worth, without the slightest effect. The anxious father and expectant nurse had meanwhile given me up as a fraud, having with such confidence promised the little one in a moment.

"I was provoked; took off the miserable little things; and for fear that nature would expel the child if I lingered, I hastily applied my old forceps, and *as a test* extracted the head with but *two fingers* on the instrument in less time than it takes me to tell you. Next day I returned the pretty toy to the instrument-maker and took out its value in silver wire.

"But they are dangerous; the obstetrician who has one may persist in its use and injure mother and child. I could not help

but tell you of my experience since I see that you treat them with the same contempt. However, they deserve more than contempt; they are indeed toys, but dangerous like the toy-pistol. They are to the obstetrician what a dull knife is to the surgeon; so do not ridicule them, but brand them and stamp them out."

A NEW ANIMAL FOOD.—Is the capybara really good to eat? Dr. Saec strongly recommends it for cultivation and domestication, alleging that it is an excellent acquisition for farms and country houses, where, without requiring more care than a rabbit, it will supply as much meat as a sheep, and he believes that it will take a place between the sheep and the pig in Europe, and that, in many ways, it can be substituted for the last-named domestic animal. This capybara, which is found in great abundance in South America, is of the average size of a pig; it can be obtained very easily; it quickly recognizes its master, whom it follows every where, and eagerly seeks for caresses. It especially likes to be scratched, and, to attract attention, extends itself full length on one side. It is very clean in its habits. In shape the capybara realizes the normal type of the meat-producing animal, as its body is an almost perfect cylinder; its limbs are short and slender; its tail and ears are very short; the head alone is large. Its apathetic character makes all nourishment available which it consumes, so that it is not necessary to fatten it; and it can be kept in a limited space. It will thrive in a dry stable, where it should be fed on all kinds of vegetables, herbs, and roots; it likes clean water and a soft litter, and it eats remarkably little for its size. (British Medical Journal.)

A CORRECTION.—We have copied so much and so often from the charming sketches of the old masters in medicine, which appear all too rarely in the *Annals of Anatomy and Surgery*, that we supposed the compositor could, if need be, set up the name of their author, Dr. G. J. Fisher, with his eyes shut. In

this we find ourselves mistaken. For, much to our annoyance, one Foster, whoever he may be, is credited with having written the o'er true story of that sly old fox, Avicenna, which we transferred from the Annals to our March pages.

The publishers of the journal ordered the offending compositor in this instance to put on sackcloth—as soon as the weather will permit—while he is already having his ashes—and colchicum—under direction of the editor.

It may not be generally known that Darwin sought for, but failed to find, the type-setter who never made a mistake and the compositor who never overlooked one; and, while he died predicting that with the eons to come these individuals would also come, be developed, evolved, emerged, or whatever it is, he fixed no time for the consummation. For ourselves, we only know that this class of typos is not met with at present. Hence, if that painstaking and graphic delineator of antique physicians, Dr. Fisher, is, in spite of all our efforts, introduced to the readers of the AMERICAN PRACTITIONER under another name, he must ascribe it to the imperfections of the craft, and console himself with the thought that the large and cultivated audience he faces will none the less recognize Fisher's hand under Foster's name.

ANOTHER CORRECTION.—In the paper in the last number of our journal on removal of the forceps before the delivery of the head, it was stated that this practice almost certainly originated with Lachapelle. The following passage in Naegele and Grenser's work on obstetrics shows that the *accoucheuse* followed in the footsteps of another: "Among German authors Boër, and after him Joerg, Carus, and others have recommended removing the forceps as soon as the head engages in the vulva, if there be no reason for the immediate termination of the labor. Madame Lachapelle participates in this view, justifying her method by reasons worthy of serious consideration, as is all that this experienced woman has said upon the employment of the forceps."

PHYSICAL DIAGNOSIS.—I have often felt, when seeing hospital patients worried by hammering and long listening to their breathing, in order that the physician might map out nicely the diseased territory, the boundaries of which he could not alter, as if it was too much like the indulgence of an idle and worse than an idle curiosity. A confessor may ask too many questions; it may be feared that he has sometimes suggested to innocent young creatures what they would never have thought of otherwise. I even doubt whether it is always worth while to auscult and percuss a suspected patient. Nature is not unkind in concealing the fact of organic disease for a certain time. What is the great secret of the success of every form of quackery? *Hope kept alive*. What is the too fatal gift of science? *A prognosis of despair*. "Do not probe the wound too curiously," says Samuel Sharp, the famous surgeon of the last century. I believe a wise man sometimes carefully worries out the precise organic condition of a patient's chest, when a very wise man would let it alone and treat the constitutional symptoms. The well-being of a patient may be endangered by the pedantic fooleries of a specialist. (Oliver Wendell Holmes.)

THE SOY BEAN.—Professor E. Kinch, writing on the subject of the soy bean (*Soja hispida*) in the July number of the Agricultural Students' Gazette (Royal Agricultural College, Cirencester), says: This bean, of which there are a dozen or more varieties known in the East, is very largely used as an article of food in Japan and China, where it is manufactured not only into soy, now exported in considerable quantities to Europe, but also into bean-cheese and other forms of food. The soy bean, in its proximate composition, approaches more nearly to animal food than any other known vegetable production, being singularly rich in fat and in albuminoids, and it is therefore a valuable adjunct to the food of the almost vegetarian Japanese. Of late years, especially since the Vienna International Exhibition, many efforts have been made to acclimatize this bean in various parts of the European continent, chiefly in Hungary and Germany.

France and Italy have also attempted it, and some of the experiments have been fairly successful. "Nature" states that Prof. Koch is trying to grow some of the varieties in the botanic garden at Cirencester, and though our climate is probably too uncertain, and the temperature often too low, for most of the varieties to attain perfection, still, if any of them could be acclimatized, a valuable leguminous cross would be added to our present list. A detailed analysis is given of the bean as grown in different countries, of several of the foods made from it, of its straw, which is a useful fodder, and of the ash of the bean and straw. (British Medical Journal.)

A MODEST FRIEND TO HUMANITY AND THE MEDICAL SOCIETY OF NEW YORK.—A letter has strayed into our hands (New York Medical Record) addressed "To the Medical Society of New York." The author writes:

Sirs i address to inform you after all the artful efforts of our smartest men i have selected 9 ingrediences of the vegetations of the Earth to Cure all Manner of Blood Deseases scrofula it never fails in no form or stage privat Deseases of all kinds olde sores or Cifulis and Catarrh of the head or any Desease Caused by impurity of the Blood it also renovates the Stomac bowels and liver Beyornt anything ever got up and Can be established as the greatest Medicen nowe in the world. . . . Now a reasonable salery will make this great matter known to the Society

addres Dr. ———,

Henry Co. Ky.

WE have a physician (?) right here in Detroit who avers that angina pectoris is an excellent remedy in consumption. He was driven here by the salutary Illinois medical law. He is of kin to the Missouri doctor who cures catarrh at one sitting, and in proof of his success he guarantees to "remove the catarrh and place it on a saucer." (Medical Age.)

THE AMERICAN PRACTITIONER

MAY, 1883.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

REPORT ON DERMATOLOGY.*

BY JOHN A. OCTERLONY, A.M., M.D.

Professor of Materia Medica, Therapeutics, and Clinical Medicine, University of Louisville.

The steady progress which has been made in other departments of medical science is also observed in dermatology. It would be entirely beyond the scope of this report to note all the new facts which have accumulated during the past year, and every improvement which has taken place during that time. It has been my object to present in this report only that which has appeared to me to be worthy of your notice and likely to prove of practical value to the general practitioner.

The impulse given of late years to the microscopical study of diseased processes has been felt with great force in dermatology, and has led to the discovery of the parasitic origin of various cutaneous diseases. With the most important of these you are, of course, familiar; still much is yet to be learned by us all, and some of the most interesting developments during the past few months have been in this direction.

*Read before the Kentucky State Medical Society by the Chairman of Committee on Dermatology.

A. Von Hebra, as quoted by the London Medical Record, August 15, 1882, has described a fungous disease of the skin which had hitherto escaped detection. The fungus is quite small, is seldom rod-shaped, and no organs of fructification have been observed. It is symmetrical in its distribution, and situated on the neck, bend of elbows, and popliteal space. It is likely to be mistaken for eczema, which often coexists as a secondary lesion. From tinea tonsurans it may be distinguished by the fact that the hairs are not affected by it; that it does not occur in rings; and lastly by its running a very chronic course. The eczema must first be subdued by soothing applications, after which the remedies directed against the parasite should be applied.

Emile Vidal describes, in *Annales de Dermatologie et de Syphilographie*, Vol. 3, No. 1, a parasite which he has discovered in *pityriasis circinnata et marginata*. He calls it the *microsporon anomæon*, or *dispar*. The most important characteristics of this fungus are, first, the diminutive size of the spores and their great variation in volume; second, a circular arrangement in the epithelial cell; third, the scarcity of the chains of spores; fourth, the absence or great rarity of mycelium.

The fungus affects the superficial and specially the middle layers of the epidermis. It is most to be seen upon the face, beard, and neck. The hair is not involved and its follicle does not become inflamed. It has never been known to occur in a person past forty years of age. It does not appear to be contagious, and recovery is speedily secured by means of the usual antiparasitic remedies.

Acute pemphigus, at least in some of its forms, will probably hereafter be classed among the parasitic diseases. Mr. Paul Gebier has found micro-organisms in the serum which fills the bullæ in this disease, and also in the urine of patients. The parasite is found in chains of rounded elements which show active movements. It is reproduced by cultivating the serum or the urine. Attempts to propagate it by inoculation have so far failed, and it has not been found to be transmitted by contagion.

The affection is easily cured by the usual antiparasitic remedies. (*Annales de Dermatologie et de Syphilographie.*)

The investigations of scarlet fever by Dr. F. Eklund, of Stockholm, have, during the past year, been carried still further, and he has successfully cultivated the *plax scindens*, just as Koch and others have carried on the culture of the *bacillus tuberculosis*.

The parasitic origin of leprosy has also been the subject of continued investigation during the past year. Hansen, of Norway, has published the results obtained by him in the culture of the *bacillus lepræ*. These confirm the author's earlier observations on this subject. (*Nord. Med. Arkiv.*, No. 26, 1882.)

The presence of this *bacillus* in leprosy, as discovered by Hansen and Eklund (*Louisville Medical Herald*, 1879), was also demonstrated by Dr. Neisser, of Breslau, who spent some time in Norway studying this disease. Profs. Ferd. Kohn and Koch subsequently reached a similar conclusion. At the International Medical Congress in London, Dr. Abraham exhibited under the microscope excellent specimens showing the different tissue changes in leprosy and the zooglea masses of Hansen. It seems now to be well established that the contagion of leprosy is due to this parasite. It is strange that recent writers on this subject should still ignore the parasitic nature of this disease which has been so clearly demonstrated, and which alone furnishes a satisfactory explanation of all its phenomena.

An epidemic of *impetigo contagiosa* has been described by Dr. Wooster Beach, attending physician Northeastern Dispensary, New York. (*N. Y. Medical Record*, Jan. 20, 1883.) The epidemic was rather limited; it occurred in a recently built up district on the south shore of Long Island Sound. All the cases, seven in number, which he saw or could learn of were located on a single avenue of two blocks, directly exposed to winds blowing from water and over salt meadows and sunken lands. Malaria, as usual in so many suburban places, is the bane of the inhabitants of this place. There seems to be no evidence that this disease was due to vaccination; for, while some of the pa-

tients had been vaccinated at varying periods prior to the attack, others had not been vaccinated at all. It appeared beyond doubt that the disease was communicated in some instances by personal contact. Dr. Beach did not discover any parasite, nor does it appear that investigation with such a purpose was undertaken. The article closes with a table of differential diagnosis, which is herewith subjoined.

IMPETIGO CONTAGIOSA.

Small, roundish, flat, discrete, vari-
ously sized pustules.

On head, isolated and few in num-
ber.

Favorite location on face, then on
arms, superficial, slightly inflamed base;
may occur in the robust.

Pustules flat, inclined to spread at
periphery, and to unite when close to-
gether.

PUSTULAR (IMPETIGINOUS) ECZEMA.

Minute pustules, agglomerating,
very itchy.

On head, usually numerous, inclined
to coalesce and cover large surface.

ECTHYMA.

Lower extremities usually attacked,
somewhat deep, firm, sensitive, in-
flamed base; mostly affects the debili-
tated.

IMPETIGO.

Pustules full and rounded, do not
increase in size, nor rupture, nor co-
alesce.

VARICELLA.

Usually small vesicles on face and
body.

Under the title "Cutaneous Irritation and the Pulse," Sarah E. Post, M. D., of New York, published in the New York Medical Record, Sept. 30, 1882, a series of interesting and suggestive experiments showing the effect upon the pulse of general cutaneous faradization. In ten cases related slowing of the pulse ensued, the duration of the application varying between fifteen and forty-five minutes. The total average slowing amounted to 8.31 per cent on the primary count. In general terms, where slowing amounted to seven per cent, drowsiness usually appeared, the face would become pale, and the hands and feet would become warm. With these symptoms coexisted a general tonic effect. In general terms, increased tension of the pulse was observed after applications to the back and to the abdomen, a full or unaltered tension being present in each case after application to the limbs. In five selected cases slowing of the pulse took place only during periods when the rise

in pressure was most apt to occur. Experiments were also made by irritating the skin with mustard plasters and dry cups.

The question, how long should persons the subjects of contagious diseases be isolated, is one very frequently brought home to practicing physicians by anxious parents and others interested. The Academy of Medicine of Paris referred it to a special commission, and after careful consideration the following answer was given, embracing not only the length of time during which segregation should be enforced, but also several other precautions deemed necessary :

1. Pupils affected with chicken-pox, smallpox, scarlet fever, measles, mumps, or diphtheria should be strictly isolated from their comrades.

2. For smallpox, scarlet fever, measles, and diphtheria, isolation should not be shorter than forty days. For chicken-pox and mumps, twenty-five days is enough.

3. Isolation should last until after patient has been bathed.

4. The clothing worn by the patient at the time he was taken sick should be subjected to a temperature of 90° C. (194° F.), and to sulphur vapor, and then well scoured.

5. The bedding, furniture, and curtains of the sick-room should be thoroughly disinfected, washed, and aired.

6. The pupil of a school, after recovery from one of the above contagious diseases, should not be re-admitted to the school, unless furnished with the certificate of a physician that the above precautions have been observed. (Gaillard's Medical Journal.)

The causation of disease is so intimately connected with prognosis and treatment that its study has ever been prosecuted with vigor, and has also been regarded by the profession as not only interesting, but of great practical import. With regard to many cutaneous diseases the etiology is still a vexed question. Professional opinion continues to be divided as to the influence exercised by malarial miasm in the production of various acute diseases of the skin. Much additional observation will be required before a final decision can be reached.

Whatever opinion may be entertained as to the malarial cause of skin disease, it must be admitted that great credit is due to Prof. L. P. Yandell for calling our attention to the clinical fact that quinine in sufficient dose exerts a powerful curative action in many acute diseases of the skin.

Verneuil and Meklen have recently published a paper on the cutaneous manifestations of paludism, with the following conclusions:

1. Herpes is one of the common manifestations of malarial disease.

2. It may either precede the paroxysm of intermittent, or occur during any one of the three stages of the paroxysm, or it may follow the stage of sweating. It may appear even after the paroxysms of the fever have been suppressed by means of sulphate of quinine. There is no etiological connection between the herpes and the fever, notwithstanding their frequent coincidence.

3. Paludic herpes does not present any peculiar features. Its most common locations are the face, the region about the lips and nostrils, the eyelids, the cornea, and such points as are most abundantly supplied with nerves. Though ordinarily discrete, in certain epidemics the eruption presents a remarkable tendency to confluence.

4. Black crusts or, more especially, black vesicles attending the herpes pertain to grave and pernicious forms of malarial fever.

5. Exceptionally, herpes of malaria takes the form of zoster.

6. The ordinary forms of malarial herpes may be preceded by and accompanied with vasomotor disturbances upon the surface of the skin and disorders of sensibility.

It is believed, in consideration of the habitual locations of the eruption, of its concomitant disorders, of its possible appearance in the absence of a febrile attack, that the cause of the disease is referable to a nervous lesion, perhaps to a congestion of the cutaneous nerve-branches, resulting from the localization of the malarial poison in these nerves. (New York Medical Journal.)

The therapeutics of diseases of the skin have been enriched by various new remedies; perhaps the most important of these is naphthol.* Prof. Kaposi, in the *Wiener Med. Wochenschrift*, Nos. 30 et 31, 1882, reports that he has treated over one thousand cases of skin disease with this remedy. It appears to be quite an active agent, and hence should be used with caution. In the hands of the writer it never caused any unpleasant effects, except some local irritation. The most favorable results obtained with it were in the treatment of scabies; no preparatory treatment was required. The remedy does not soil the clothing; it causes no irritation of the healthy skin; and a single application is sufficient to effect a cure.

The following is the formula given by Kaposi:

Axungia vel unguenti mollis,	100 parts;
Saponis Viridis,	50 parts;
Naphthol,	15 parts;
Cretæ preparatæ,	10 parts. M.

In children the proportion of naphthol may be reduced to ten parts.

The ointment should be briskly rubbed into the parts affected by *acarus scabiei*. Starch is then powdered over the surface, and the patient is to be wrapped in flannel. In ordinary cases the patient is discharged cured in twenty-four hours.

Even when eczema is present, this is still considered the best treatment. Various forms of eczema, ichthyosis, and prurigo were also greatly benefited by the use of this remedy. In prurigo its beneficial effects were most striking. The mode of application is as simple as it is effective. An ointment composed of five parts of naphthol to one hundred parts of simple cerate is rubbed into the affected parts, which are also powdered over with naphthol. In the more chronic and obstinate forms of disease, especially ichthyosis, special care must be given to the skin in the way of emollient baths, etc., and the use of the remedy must be kept up persistently. In the milder forms of disease and in more recent cases the cures have been surprisingly rapid.

* It is always kept on hand by C. Lewis Deihl, druggist, this city.

The accomplished editor of the Medical Bulletin, Dr. J. V. Shoemaker (July, 1882), publishes an article on the Oleate Oleopalmitates in Skin Diseases. He calls attention to the fact that they are chemical compounds of a definite, stable character, true oleates, not mere solutions of oxides in oleic acid, as those heretofore manufactured. They are produced by the double decomposition of sodium of oleates with solution of neutral salts. In this important paper, one of the most useful and practical publications during the past year, the talented author enters fully into the mode of preparation and the advantages and indications of each in the disease to which it is applicable. He considers the oleate of mercury the best local stimulant and alterative of all the mercurials. He recommends it, not only in the treatment of syphilis, but in chronic psoriasis, and as capable of a thorough destruction of parasites, both animal and vegetable.

Oleate of zinc is declared to be the remedy, par excellence, for excessive sweating, and in cases of osmidrosis he considers it the most reliable application. In that most common form of eczema, vesiculosum, oleate of copper, he found, effected rapid cures; and in cases of ringworm great benefit was derived from the application of the oleate of bismuth penciled over the surface; it often subdues intractable cases. Oleate of arsenic has been used with satisfaction in ulcerated lupus and epithelioma; oleate of silver is recommended as a safe and efficacious remedy in erysipelas.

The superiority of the oleates over ordinary ointments is stated in detail as follows: First, their deep penetration; second, their freedom from rancidity; third, their cleanliness of application; fourth, their great economy, they require to be only lightly smeared, or applied over the surface in very small quantities; fifth, their antiseptic and deodorant action.

In herpes zoster, Dr. Lamberty (*Revista Clinica di Bologna*) reports a cure accomplished in one day by painting the vesicles with carbolic acid, and then applying a layer of cotton wool; a saline purgative was given the next day.

Dr. Meredith (London Practitioner, August, 1882) reports

excellent results in the treatment of the same disease with *oleum menthæ piperitæ*. He found it more effective than any other anodyne application in allaying the neuralgic pains so often accompanying herpes zoster in old people, and after eruption has disappeared. Painting over the affected parts with this oil nearly always produced speedy relief. Its application was also attended with great benefit when the eruption was fresh and florid.

Dr. Eklund (Louisville Medical Herald) has, within the last year, called attention to the rapidly curative effect of balsam of Peru as an external application in scabies.

A new remedy in chronic eczema has been brought to the notice of the profession during the past year. Dr. J. Furgerson (Canadian Jour. Med. Sciences, April, 1882, and Arch. of Dermatology, October, 1882) reports a case of chronic eczema of the face, in which the skin was thickened and infiltrated; there were deep fissures in many places, the skin dry and scaly, and the patient suffered greatly from itching and burning; the disease had lasted a long time, and the patient was put on an infusion of *viola tricolor*, two drams to ten ounces of water. All other treatment was suspended. In a week there was more inflammatory action, and the skin began to discharge large quantities of serum. The infusion was then withheld and a mild saline diuretic was prescribed. In a few days the infusion of *viola tricolor* was resumed, but of less strength; forty grains in infusion were taken daily. After continuing this treatment for six weeks, the patient's general health had much improved, and the skin had assumed a favorable appearance. The patient slept well and experienced more comfort than he had had for several years.

Dr. Reiter, of Pittsburg, has, within the last few months, given an account of a remedy for inveterate psoriasis, which he had used successfully in his own case and in many others. The doctor had suffered from this disease in an aggravated form, inheriting it through several generations. At the suggestion of an old farmer he took a saturated tincture of burdock seed.

Dr. Squibb, in his ephemeris, recommends the preparation of the tincture in the proportion of two ounces of crushed seeds to a pint of good whisky, of which four fluid drams, well diluted, should be given three times a day after meals. Its administration must continued for a long time, perhaps many months. Under its influence the digestive functions and the skin are greatly improved. The medicinal properties of the drug appear to reside in an essential oil and a resin.

Boracic acid, one of the more recent additions to the materia medica, has lately been applied to the treatment of various cutaneous affections. Dr. Kurtz (*Memorabilien*) reports that he has used an ointment composed of five parts of boracic acid to from ten to fifteen parts of vaseline with successful results in eczema, impetigo, prurigo, and psoriasis. (Physician and Surgeon, October, 1882.)

The salicylate of soda has recently been used with marked effect by Dr. E. Westlund, of Sweden, in the treatment of leprosy. He prescribes the medicine on the ground that leprosy is due to micro-organisms. The first case was that of a man suffering from a high degree of lepra tuberculosa. The remedy was ordered in doses of fifteen grains in water five times a day. The patient wrote, after some months, to report that he was perfectly cured. Two other cases were still under treatment, and had also undergone great improvement.

In lupus erythematosus, which is not a very rare disease, Dr. Fox, of New York, has recommended a mixture, composed of

Chrysarobin,	15 parts;
Salicylic acid,	10 parts;
Calamine,	5 parts;
Ether,	10 parts;
Flexible collodion,	60 parts,

to be painted upon the diseased patches. He says salicylic acid has a decided effect upon the epidermis, and chrysarobin upon cellular infiltration of the skin. This combination is expected to prove greatly beneficial in this disease.

Dr. M. A. Collins, in an article entitled "The Curability of

Epithelial Cancer and kindred Ulcers," which appeared in the Cincinnati Lancet and Clinic, July 15, 1882, reports the cure of several cases of malignant ulceration by means of the application of powdered ergot. Recent ergot, freshly ground to an impalpable powder, was applied three times daily to the entire ulcerated surface by means of a large, soft, hair pencil. The powder was used dry, allowing all to adhere that would. After each application the ulcer was covered with a light muslin rag, wet with the following lotion :

Sulphurous acid, ℥ iv ;
Carbolic acid, ℥ j ;
Glycerin, ℥ j ;
Aqua, ℥ iiss. M.

The patients were also put upon iron, quinine, cod-liver oil, and the usual adjuncts to restorative treatment.

The features which most frequently induce patients suffering from cutaneous affections to seek medical aid are doubtless disfigurement and pruritus. Of these the latter is productive of greater suffering in the majority of cases, but the mental suffering inflicted by a disfiguring eruption is certainly not trifling. Any thing capable of relieving the intense itching attendant upon many papular, vesicular, and vesiculo-papular eruptions can not be unworthy the notice of practical physicians. Among the means of allaying even intense itching, hot water occupies a very prominent place. I became aware of this while suffering, some months ago, from a severe attack of eczema papulatum of both hands, attended with exasperating pruritus. This most troublesome symptom was, in my own case, quickly and for the time being entirely relieved by immersing the affected parts in hot water of as high temperature as could be borne. The immersion should last at least ten minutes, and may be repeated at any time if the itching returns. Usually a single immersion affords relief for many hours. By this means a good night's sleep may be secured to a patient, who otherwise would have to endure many hours of most uncomfortable unrest. While the affected parts are immersed, a pitcher containing very hot

water should be at hand, so that the high temperature of the water can be kept up by occasionally pouring in small quantities from it. The soothing effects of this simple remedy also tend to shorten the disease, while mitigating the suffering entailed. It is most applicable to cases in which the eruption is situated upon the extremities and does not involve the integument of the whole body. Since this observation was made by me, Dr. E. B. Bronson has also called attention to the anti-pruritic property of hot water in an excellent paper on "Eczema, its Pathology and Treatment," which appeared in the *Journal of Cutaneous Medicine* for February, 1883.

LOUISVILLE, KY.

THE POWERS AND DUTIES OF LOCAL BOARDS OF HEALTH.*

BY J. N. M'CORMACK, M.D.

To those who think only of honor and profit, it can be easily demonstrated that no more undesirable position can ever be devised for a physician than to make him a member of a local board of health. With no other compensation than the ill will and abuse of those whose prejudices and pecuniary interests are disturbed by his efforts to discharge his duty, and the complaints and jealousies of his professional brethren whose patients he must often interfere with, he is asked to furnish himself with sanitary books, journals, and other appliances, at his own expense, to enable him to diminish the sickness by the very existence of which he earns a support for himself and family. Under this state of facts it is not strange that central health departments, both in this country and Europe, have found their greatest practical difficulty to be in securing efficient local workers; but it would rather seem remarkable that physicians have been found

* Read before the Kentucky State Medical Society, April, 1883.

who would accept offices of this kind at all. It could be done in no other profession but ours, and the subject is brought up here for the purpose of determining if the profession of Kentucky is ready to earnestly engage in the work, for the State Board is ready to admit that it is utterly dependent at this point. With the profession to back it and hold up its hands, every thing is possible; without it, nothing can be done. The auditor could better collect the revenues from the various counties without the aid of the sheriffs, than can the State Board of Health manage the sanitary interests of the cities and counties of this Commonwealth without the assistance and co-operation of an efficient local board in each. In fact, the State Board was largely designed by the law under which it acts as an agent for the organization and stimulation of local boards, and could be easily dispensed with or used only as a center of communication if a model board existed in each city and county. That this ideal condition will be realized in this State for many years to come, will hardly be expected by those who have made themselves familiar with the state of public and professional opinion on the subject; but the gradual improvement from small beginnings, and against strong opposition in other States and in some counties in this State, leads those interested in our sanitary work to hope that, notwithstanding all the disadvantages under which we have labored and still labor, a work may yet be accomplished which will not only reflect credit on the profession, but result in a great saving to the State by diminishing the sickness and lessening the death-rate.

Much has been said and will be said about the need of new legislation and increased powers, but the difficulty in this State so far has been that the laws already in existence have not been enforced, and the powers already granted have not been exercised. In some counties, it is true, during the past winter especially, excellent work has been done in stamping out smallpox and abating nuisances; but in many instances even the formality of organizing the boards has not been gone through with, and nothing whatever has been attempted. Under our present laws

the powers of health boards in making and enforcing regulations for the public health and safety are practically unlimited, being almost as ample as the legislature can confer, their authority in some respects being greater than that of any other body known to the law. In the presence of epidemic and contagious diseases they may enter any dwelling, building, vessel, or vehicle by force, if need be; may restrain the liberty of citizens and destroy their property; in a word, may enforce any regulation which may be necessary to prevent the spread of disease and secure the public safety. They may declare and maintain quarantine between the counties or between certain districts in the county; isolate persons infected with contagious diseases, or temporarily remove persons from infected localities. Any nuisance, source of filth, or cause of sickness found on either public or private property must be abated by the owner on the order of the board; and if he fails or refuses to do so, the board may have it removed at his expense and prosecute him for a disobedience of its mandates, each day's continuance after receiving the order being a separate offense. They have authority to make sanitary surveys, regulate vaccination, the ventilation of schools, jails, and other public buildings; and even have control of the interment of the dead.

From these enumerated duties (and only the principal ones have been touched on), it will be readily seen that the county boards not only possess large powers, but that they also have imposed upon them grave responsibilities. Upon their prompt, intelligent, and efficient action will oftentimes depend the safety of an entire community. A single case of smallpox, scarlet fever, or measles may, if attended to in time, be so effectually isolated as to involve no danger to others, while a little neglect may allow the seeds of a pestilence to germinate which would desolate a community or a district.

What has been said of county boards may be taken as substantially true of town and city organizations. Of course the dangers are increased in great centers of population, where dwellings, barns, outhouses, wells, cesspools, sewers, and man-

ufactories are crowded upon a small territory, where crowds of people are continually mingling on the streets and in churches and places of amusement; and with the greater dangers comes increased responsibilities to the guardians of the public health, but the duties differ in degree rather than in kind. Cleanliness, pure air, sunlight, dry soil, and good water are among the precautions against the ordinary forms of disease; and these, with isolation, disinfection, and eternal vigilance, are the weapons to be used against those of the epidemic and contagious variety. In city and country alike the importance of little things must not be overlooked. One defective sewer may desolate a block of houses. An accumulation of filth at one point may fill the air with miasms, or the poison may percolate through the soil into neighboring wells and springs, and sow the seeds of disease and death broadcast through a community. The better to carry out these objects, every board of health in city or county should adopt a code of sanitary regulation, and publish, republish, and explain them until every citizen under their jurisdiction should not only become familiar with the language, but understand their purpose. The daily press, the pulpit, and every other legitimate means should be used to inform the public and to impress them that sanitation is a benevolent work of our profession, undertaken solely for the general good. When this point is gained the balance will be easy. Just as soon as people can be made to understand that it is essential to the protection and well-being of society that this work be carried on, will hearty co-operation, sympathy, and, last of all, money reward those who have had faith to work. When the public can be made to comprehend the importance of the early detection and isolation of cases of contagious disease, the intelligent portion of the community will no more think of endangering their neighbors by failing to give the notice now required by law than by any other reckless conduct. This is not conjecture or closet reasoning, but is founded as well on the experience of other nations as on that of older health boards among our own people. The code adopted by each board should embrace the following points

and such others as the peculiarities of their locality may seem to require:

1. For a sanitary survey of the city, village, or county, with reference to the sewerage, drainage, and water-supply; number and sanitary condition of the inhabitants; the accumulation of filth, and the disposal of excreta and garbage.

2. For an efficient system of sewerage with occasional inspections.

3. For the cleansing of streets and alleys.

4. For the inspection of lodging-houses, hotels, and public buildings, with special reference to the condition of cellars, drains, water-supply, and ventilation.

5. For the regulation and inspection of markets.

6. For a complete record of births, marriages, and deaths.

7. For regulating the interment of the dead.

8. For vaccination and re-vaccination.

9. For preventing the spread of contagious diseases.

10. For regulating when and by whom notice should be given of nuisances and other causes of danger to the public health.

In all that is written for the public in regard to sanitary matters, too much stress can not be laid on the fact that the greatest dangers to the public health and consequent high mortality come not from epidemics, but from the ordinary forms of disease. A few cases of smallpox will cause a great scare; a hundred cases of yellow fever will destroy the commerce of a city or State; and a thousand or less cases of cholera will paralyze the business of our whole country; but ten times as many equally good people may perish from our common every-day diseases without causing a ripple. Authentic statistics show that more people die in this country every year from consumption than have died from smallpox in a century; that more of our people die every year from our ordinary forms of diarrhea and dysentery than have ever died from cholera; and that more people die every year from our ordinary miasmatic diseases than have died from yellow fever in this country since Columbus discovered America.

REPORT ON MATERIA MEDICA.*

BY T. B. GREENLEY, M.D.

When we make a comparison of the treatment of diseases at the present time with the method employed forty years ago, we are naturally and forcibly impressed with the fact that a great advance has been made. The same remark will hold good when speaking of the manner of administering doses. Your reporter well recollects when country physicians were compelled to act as their own pharmacists, and in many instances made a very bungling job of it. We had no means in those days of concealing the unpleasant tastes of our remedies. In many cases, no doubt, nausea and vomiting were the result of the nauseous dose. Imagine, if you please, at the present, a dose of calomel and rhubarb mixed with molasses in a big spoon handed to the patient to swallow, and you will readily conceive how disgust and nausea would be excited. We should, therefore, feel grateful, both as physicians and patients, that the days of office pharmacy have passed, and thank the genius of inventors for the many ways of concealing the nauseous taste of drugs and for the eligible modes of their exhibition we now have the advantage of.

It is often said that our pharmacopeia is becoming too voluminous; that there are too many substances brought into use as remedial agents. We have every year many new preparations presented before the profession, a certain proportion of which, no doubt, will sooner or later be laid aside as comparatively useless; but I think it is our duty to investigate the properties and uses of all agents, and select from them such as we find to be most beneficial. We have comparatively but few positive remedies, and those few were found to be such after diligent research and investigation; and, I think, until we have fixed remedies for every disease, we should not discard any

*Read before the Kentucky State Medical Society, April, 1883.

thing without a fair trial. If our predecessors had concluded the pharmacopeia was sufficiently full and ignored the use of new agents, we would to-day have been deprived of many precious remedies. We should therefore continue to make fair experiments with whatever lays claim to being remedial.

Notwithstanding we have such a bountiful supply of new remedial agents, it is now and then discovered that old remedies are applicable in the management of diseases where they have not heretofore been used. Iodine has lately been used in typhoid fever, and carbolic acid is gaining quite a reputation in the treatment of the same malady. Turpentine, a very ancient remedy, has recently been brought into use as a remedy also in that disease. Dr. Bolling, of Nashville, extols its virtues in this particular complaint. This agent is also recommended as a remedy in tenia solium, as well as locally applied in erysipelatous inflammation. Iodine is also claimed to be a successful remedy for intermittent fever; as far as I have given it a trial, I can not say that I am prepossessed in its favor. Ergot has recently been used as a local application in cancer and other tumors. Dr. Collins, in the *Lancet and Clinic*, reports ten cases in which he used it successfully. He applies it dry, in form of a very fine powder. He was led to its use in this disease on the principle that cancer progresses by proliferation of cells; and, as the remedy is said to act by contraction of terminal blood-vessels, he inferred that it would act locally applied as it does through the systemic circulation. Should his observations become to be verified by others, his discovery will prove to be a great boon in the treatment of one of the most loathsome diseases humanity is subjected to, and one heretofore regarded generally as incurable.

Quassia amara, long used as a bitter and tonic, has recently yielded active principles, termed amorphous quassin and crystallized quassin, which have proved in the hands of Dr. Campardin to possess valuable properties in being capable of stimulating the salivary glands, the liver, and kidneys.

Hyposulphite of soda, long regarded as an antiseptic in

arresting ferment in the blood, especially in typhoid fever and other septic diseases, also is ascertained to possess febrifuge properties, as well as those of an antiperiodic character. In certain cases, owing to peculiar idiosyncracies of patients who could not with impunity take quinine, I have succeeded in arresting remittents in forty-eight hours, and have frequently treated intermittents successfully with this remedy. When quinia is at a very high price, this substance can be conveniently resorted to as a cheap substitute, especially among the poor.

Cinchonidia is still very extensively used as a substitute for quinia, and as an antiperiodic I believe is but little inferior to it; but as an antipyretic I regard it quite inferior. In many instances it excites nausea as well as nervousness on the part of the patient. The stomach in some cases becomes intolerant to its presence. If I take a large dose of it I am compelled to stay in bed while its influence continues; this is not the case with quinine. At times when quinia may be at a high price we have a good substitute and very cheap, especially as an antiperiodic, in the purified chinoidine. Messrs. McKesson & Robbins did me the kindness to send me a sample, which I find an excellent remedy in intermittents. But since the duty was taken off of quinine it has become so cheap we are hardly compelled to resort to any substitute.

Salicylic acid and its salts continue to maintain their standing as prompt remedies in acute rheumatism, but exert but little influence in the cure of the chronic form. These remedies are also used as antiseptics and antipyretics in other diseases. The sodium salt is also recommended as a specific in tonsilitis.

Chrysophanic acid is still used successfully in the treatment of psoriasis and allied diseases, but owing to its great irritating properties has to be used with caution.

Bichloride of mercury has been recently used successfully in gonorrhea in form of a weak solution by injection. It is better adapted to the chronic stage. Dr. Leisterkow uses this treatment on the theory that bacteria are in the urethra, and that the corrosive sublimate acts as a germicide.

Sulphate of atropia, according to Dr. Gentilhomme, produces surprising effects in the relief of coryza when given in the first stage, and will do much good even after the trouble is advanced. He also recommends it in bronchitis. It does good by arresting nasal secretion and relieving congestion of the membrane.

Sulphate of zinc has lately been used successfully, in Georgia, as a remedy in scarlet fever.

Inhalations of carbonate of ammonia promise to be beneficial in both acute and chronic bronchitis. This can be effected by carrying small pieces of the salt in a little sack hung around the neck. Carbolic acid, although falling somewhat into disuse as a local antiseptic, especially as used by Lister, is gaining ground as an internal remedy, both by the mouth and hypodermically. It has been used in the latter way by several foreign physicians in intermittent fever, prurigo, diphtheria, crural neuralgia, pleuro-pneumonia, typhoid fever, malignant pustule, nevis, acute articular rheumatism, and as a prophylactic against the spread of erysipelas. The strength of the solution used was two per cent of the pure article in water. No doubt the object of this mode of treatment was to induce the antiseptic influence of the remedy through the blood in the majority of the cases; or, in other words, it was administered with a view to its germicidal properties.

Borax and boracic acid have been lately used with success by Dr. Goodheart, of London, in six cases of diphtheria. The remedy was used locally, both by brush and atomizer. They evidently possess antiseptic properties. Borax has also been used successfully in epilepsy where the bromides had failed.

Dr. David uses atropine conjoined with ammonium and potassium bromides in the treatment of epilepsy.

Prunifolium Virginiana still holds its ground as a prophylactic in abortion. It no doubt possesses positive properties as a uterine tonic.

The oil of wintergreen (gaultheria), heretofore used mainly in pharmacy as a perfume and aromatic, has lately been introduced as a remedy in acute rheumatism. Dr. Kinnicut, of the New

York Hospital, reports twelve cases of this disease treated alone with the oil. He extols it as possessing decided advantages over the salicylate of soda, or the acid. It is tolerated better by the stomach, and is much more pleasant to take. In these cases the average duration of the fever was about three days, and joint-pain four and a half days. He also derived some benefit from its use in the chronic form of the disease. (New York Medical Record, of Nov. 4, 1882.)

My friend and neighbor, Dr. Foss, has used the oil in two cases with decided success, and is delighted with the remedy. Any treatment that will promptly relieve acute rheumatism should be hailed with joy.

Dr. McColgan is highly pleased with the use of ether spray in facial neuralgia. He reports twenty cases successfully treated.

Eucalyptus globulus, when first introduced to the notice of the profession, was regarded by some as a possible substitute for the cinchona bark; but this hope was not realized by experience; yet it undoubtedly possesses valuable antiperiodic and antiseptic properties. Dr. Currier speaks highly of its use in offensive discharges from the vagina. He uses it by means of a tampon, and alleges that it has a positive anesthetic as well as antiseptic and healing effect.

Of the many new remedies, I can allude briefly to but a few. Parke, Davis & Co. sent me some samples of their make. As far as I have given them a trial they have met my expectations. The fluid extract of cascara sagrada proves to be a good aperient in constipation, and, in the form of a cordial, not unpleasant to take. The Jamaica dogwood extract I consider a good sedative, and possessing tonic properties. The fluid extract of manaca seems to exert a favorable influence over chronic rheumatism. I think I have derived as good results from the use of the fluid extract of ustilago maidis in metrorrhagia as from ergot. I have not used it in other hemorrhages.

Coca is still used as an antidote to the morphia habit, with now and then successful results. I have only used it in one case, under unfavorable circumstances, without success. It no

doubt possesses supporting properties, both to the heart and nervous system, and is a good stimulant.

Convallaria majalis has been highly recommended as a cardiac stimulant. It is peculiarly adapted to cases where drop-sical effusions are present. In cases of mitral insufficiency, accompanied with angina or not, it is highly recommended. In the very limited experience I have had in its use I am much pleased with the remedy.

In cases of cramp colic, or any griping pain in the stomach or bowels, I have found chlor-anodyne a prompt and efficient remedy.

I have used, recently, a fluid extract of *pinus Canadensis*, which I believe possesses considerable medicinal virtue in irritated or chronically inflamed mucous membranes. It is not to say unpleasant, and is better adapted for internal use. I have used it only in chronic diarrhea, but think it well adapted to cases of irritation of the urinary passages. Dr. Marion Sims speaks well of it as a local application in the treatment of chronic vaginitis and inflammation of the cervix uteri.

Dugong oil is now recommended as a substitute for cod-liver oil, and is claimed to be much more pleasant to take and equally effective.

Allyl slightly promises to become a possible remedy for hydrophobia. Three cases are reported where it acted successfully as a prophylactic in that terrible malady.*

In the late revision of the U. S. Pharmacopeia it will be noticed that many articles of the materia medica have been omitted; and more than this number have been admitted—among them, more particularly, the comp. tinct. iodine, digitalin, and elaterium. Another fault in the work alluded to lies in the change of strength of some of the preparations of opium, notably the

*The sulphide of calcium I believe to be a good alterative in excessive ulcerative processes; and if given carefully, and with regularity, will arrest to some extent, or at least diminish, pus formation. I have used it satisfactorily in excessive discharges from the lung in advanced tuberculosis. In lymphatic glandular enlargements I have derived positive benefit by the use of calcium chloride.

tincture and deodorized tincture. These articles contain twenty-eight per cent more opium than formerly. This remark applies also to the preparations termed *abstracts*. They are one hundred per cent stronger than the ordinary solid extracts of the same substances. It will be necessary for practitioners to familiarize themselves with these changes in order to prescribe with safety. Owing to the change made in formulas of parts by weight for specific weights and measures, the fluid extracts are decreased about five per cent in strength.

In the revision of 1870 we had 970 articles of *materia medica*; of this list 330 were of the primary, and 72 secondary, while the remainder, 568, were preparations. Of these articles, 63 primary, 45 of the secondary list, and 121 preparations have been dismissed from the present revision, making in all 229 titles. The number of articles added to the present revision is 256, making the total number of remedial agents 997.

In accordance with the action of the American Medical Association at its meeting in 1880, the committees of the present revision adopted the metric system. It is not unlikely, however, that a majority of physicians now in practice will continue to use the synonyms of the old system of weights and measures in the formulæ of their prescriptions.

In speaking of *materia medica*, or remedial agents, we generally have in view single substances or individual articles, and of course describe their virtues in that way; but in many instances we derive great benefit by combining two or more substances, as, for instance, in prescribing opium and belladonna together. In certain cases we combine hyoscyamus or belladonna with purgatives to modify their action. We could scarcely with safety exhibit podophyllin alone any length of time on account of its drastic and griping effects; hence we combine some sedative to guard it in that particular. We might cite an instance where a sedative and hypnotic could be combined which would afford almost immediate relief, wherein either alone would fail to do so; I allude to a case of acute bronchitis in the first stage, with smart pyrexia and cephalalgia, wherein a few grains each

of chloral and bromide of potassium would most likely act like a charm. The cough and pain would be greatly relieved, and perhaps a long step made toward aborting the disease.

As it is now claimed by many medical men that most of our diseases are dependent on bacteria or some peculiar microscopic germ or fungus, may not this, should it prove true, revolutionize to some extent our therapeutics? We shall then, perhaps, know our *materia medica*, not so much by the terms alteratives, antipyretics, tonics, etc., but by germicides. Even now several diseases are being treated antiseptically on the germ theory. We have bacteria, bacilli, etc., as the causes of malaria, consumption, syphilis, typhoid fever, gonorrhea, yellow fever, diphtheria, etc. Our remedies may not be changed so much as the indications for their use. Quinine will, of course, stand as the germicide in malarial diseases; carbolic acid and the sulphites, perhaps, will come into more frequent use. Should this state of things become permanently settled, we will have the advantage of treating disease more scientifically than heretofore. We now know that quinine cures *ague*, but we did not know that bacteria were the cause of the disease, nor that we were destroying them with our remedy.

OREL, KY.

REPORT ON SURGERY.*

BY W. M. FUQUA, M. D.

Your committee reports that surgeons nowhere during the past year have taxed their inventive capacity so much as in some other years; but have rather exercised themselves in testing and elucidating such plans of treatment, such theories and operative procedures as have been suggested in a comparatively recent period. At no former period, for instance, has the treatment of wounds engaged such thought and attention as

*Read before the Kentucky State Medical Society by the Chairman of Committee on Surgery.

within the past year. As a result wound-treatment has been brought to wonderful perfection, though we by no means have reached yet, in any sense, all we desire. The treatment of wounds is to be considered "the corner-stone of surgery," and just in proportion as it is perfected do we advance our art. The antiseptic treatment of wounds is the greatest advance made in surgery in modern times, and is the legitimate outcome of the doctrine of fermentation, decomposition, and putrefaction. Slowly the antiseptic doctrine has well established itself, and, in future, must remain the bulwark of surgery. It would seem almost needless to speak of drainage, since it is a recognized part of the antiseptic system, and is essential to the highest success in wound-treatment; not only in amputations of the breast and extremities, but especially so in sub-peritoneal surgery. I shall not occupy your time by enumerating the several substances in use to render wounds aseptic, but may be permitted the remark that the antiseptic of the future has not yet come to light. What we need is an agent which will secure asepsis, and at the same time prove at least non-irritating, if not actually soothing, and even anesthetic, slightly astringent, and styptic; but non-corrosive, and withal not poisonous. When this end shall have been attained many of the chief enemies of the surgeon will have been relegated to the past.

Listerism still survives, while the same investigation which was applied to the germ theory has given a clue to the etiology of many obscure diseases, and has led to the introduction of new and efficient methods of guarding against and combating disease. The fact is, we are now for the first time in our history in a condition to make a rational system of therapeutics. In support of this idea I will mention that Dr. Ganthier, of St. Paul, Minn., gives the highest praise in the treatment of diphtheria to tincture of iodine, both generally and locally; Drs. Walton and I. P. Walker have reported very favorably on the use of the iodides in scarlatina; Drs. Kleinecke and Hinchey have reported over three hundred cases of malarial affections treated with a solution of iodine in iodide of potassium and

simple syrup. Ninety-nine per cent of the cases were relieved. The sulphites have been used in all the zymotic diseases, and with benefit in some. In diphtheria, sulphurous acid has given good results. In scarlatina, sulphurous acid, sulphur, and sulpho-carbolate of soda, and soda bisulphide have found ardent advocates. It is a well-known fact that workmen in sulphur mines in Sicily enjoy immunity from malaria. Others protect themselves from marsh fevers by daily fumigating the naked body with sulphur. Carbolic acid has been used in typhoid fever, in whooping-cough, and in diphtheria. M. De Lacaille, of Rio, says: "During the thirty years in which I have been employed in fighting yellow fever, this is the first patient whom I am certain of having snatched from death at such a period of the disease by the subcutaneous injection of carbolic acid." A case of viper-bite is recorded as cured by injection of carbolic acid, and another by the injection of permanganate of potash. Good results have been reported from the subcutaneous use of a solution of benzoate of soda in yellow fever.

For this apparent digression from my subject I trust you will pardon me. I have only cited the above relative to the practice of medicine in support of the germ theory and antiseptics. It is needless for me to refer to the treatment of wounds as practiced twenty years ago. How often, in our late revolution, did the army surgeon feel pained at the want of success even in the performance of trivial operations, and what fear and trepidation filled the heart of the conscientious surgeon as he did his work in the wards of his hospital! Who can forget the alarm created when it was announced in a crowded military hospital that a case of gangrene or erysipelas had appeared? Even at this late day we can behold the sunken eye, the pallid and wan cheek, the anxious expression, mutely appealing for help which we were impotent to give. Happily, that day has passed, and we stand upon a higher surgical plane and bid defiance to many of the evils which once caused such dreadful havoc.

Peritoneal Surgery. The term, abdominal surgery, covers a wide field in which many surgeons have won imperishable

renown. Under this definition is embraced ovariectomy, extirpation of the uterus and its appendages, spleen, and kidney, resection of the intestines, bladder, and stomach, operations for pelvic tumors and abscesses, and lastly, operative interference in gun-shot wounds of the abdomen. This department of surgery has grown *pari passu* with the growth of the application of the antiseptic system, and is without a precedent in surgical history. Hunter McGuire, in 1873, was the first American surgeon who recommended the abdominal section in gun-shot wounds of the abdomen, and in 1876 Prof. Dugas, of Georgia, presented the same views in an elaborate paper before the Centennial Medical Congress at Philadelphia. Marion Sims has recently reopened the subject, while an example of the good results of the procedure in an affection of non-traumatic origin was given during the past year by Schmidt, of Moscow, who, in a case of purulent peritonitis, incised the abdominal wall from the umbilicus to the pubis, removed the effusion and drained the peritoneal cavity. The patient—a man twenty-one years old—was, it is stated, quite well in two months after date of operation. (British Med. Journal, December, 1882.)

Gastrotomy. This operation has been often successfully performed for the removal of foreign bodies and for artificial feeding. Dr. Pooley, of New York City, has reported ten recoveries out of eleven cases performed for the removal of foreign bodies. Subsequently, Labbe and Filizet, of France, have both successfully performed this operation, the former having removed from the stomach of a man a fork, who in a playful freak had swallowed it. The latter removed a spoon from another, who perfectly recovered.*

In stricture and carcinomatous disease of the esophagus, Mr. Holmes argues the propriety of esophagotomy, thinking it superior in many respects to gastrotomy, though its range of application may be more limited. Further experience is yet required to show what the relative value of these two operations is.

*Genis Cain, the Parisian waiter on whom Dr. Filizet operated, died from peritonitis, February 18th, after indulging in a hearty meal of bread and cheese.

Resection of the pyloric orifice, for cancer, has been done perhaps fifteen times. Three out of this number are reported alive. Although this grave operation is assumed to be within the range of experimental surgery, yet the probabilities are it will never be recognized as a justifiable procedure.

Intestinal Obstruction and Hernia. Laparotomy for intestinal obstruction has been performed with rapidly growing success within the last few years, and in the near future it is likely to be popularized. "It is confidently predicted that, when earlier operative interference is resorted to, more confidence in the operation will be established, and far better results will be secured." Resection of the intestine continues a popular operation.

Dr. Quolliard, of Geneva, records recently two successful cases of resection. He distinguishes between primary and secondary enterotomy. The former he applies to resection done for gangrene of the gut, and the latter to a similar operation for artificial anus. The latter he considers the safest operation. In cases of hernia with gangrene of the intestine he first establishes an artificial anus, and subsequently to resect and restore the continuity of the gut. In proof of the correctness of his views he adduces twenty-five cases of resection for artificial anus with but eight deaths, while, of forty-four cases (besides unpublished ones) of primary intestinal resection, twenty-three were fatal. (Medical Press.)

Lumbar colotomy is performed for mechanical obstruction by carcinomatous or other growths. It has also been done by abdominal incision. Dr. Sims believes it would be easier done this way, and the artificial opening rendered more convenient for comfort and cleanliness. Various operations for the radical cure of hernia have been suggested. Recently Dr. W. Mitchell Banks, in the *British Medical Journal*, describes an operation which seems to your reporter more rational and feasible than any heretofore proposed. He ligates the neck of the sac with excision of the sac, and with silver wire stitches together the pillars or columns of the abdominal ring. Twenty-one cases are reported, fifteen of which are cured,

and the patients now at work. This operation would seem to give better results than the "cork-screw operation." American surgeons, however, in the main, view with distrust all operations of this kind; this one, however, appears worthy of trial.

The treatment of rupture, incised and gun-shot wounds of the bladder has been discussed during the past year by Fisher, Rivington, Stein, and other surgeons. Laparotomy for ruptured bladder, so far as your reporter is informed, has been done only three times; once by Dr. A. G. Walter, in 1859, recovery, the operation being done ten hours after reception of injury; one by Dr. Alfred Willett, in 1876—the patient was not operated on for thirty hours after injury, and yet survived twenty-three hours after the operation; and one by Christopher Heath, in 1876, forty-two and a half hours after injury, the patient surviving more than four days. It is evident that the chances for successful result in the latter cases were greatly lessened by the loss of time between the injury and the operation.

From what has been said, the advantages of laparotomy in intra-peritoneal lacerations are quite evident, and rest upon thorough cleansing of the peritoneal cavity and accurate closure of the vesical wound. Gross, as early as 1851, recommended laparotomy for these injuries. The late J. R. Wood relieved three cases of wounds of the bladder by drainage-tubes. The bladder has been repeatedly wounded in the various operations of the abdomen. "There is no reason why the peritoneal portion of this viscus should not be sutured with as much propriety as we do the vaginal." The chief points of interest relating to the bladder are the steady growth of Bigelow's operation and the removal by perineal section of tumors from the interior of the bladder, both by Berkley Hill, Reginald Harrison, and Sir Henry Thompson; also the relief of intractable cases of chronic cystitis, by the latter surgeon, by a direct opening into the neck of the bladder upon a grooved lithotomy staff and in the median line, and draining the viscus through this opening.

The treatment of gonorrhea by injection of sulphurous acid, diluted one part to fifteen or twenty of water, is strongly recom-

mended by Dr. Wilson, of England. (London Lancet.) A solution of corrosive sublimate has also been suggested in this same malady. Presumably, these agents must act as germicides.

"Incisions through the thoracic walls into diseased lungs have recently been advocated by Drs. Bell, of Christiana, and Fenger and Hollister of Chicago. This procedure is advised in "circumscribed gangrenous foci in lung tissue, in pulmonary abscess, and of phthisical and bronchiectatic cavities."

Excision of the Lung. Gluck, of Dantzic, following up his previous experiments, exsected one lung from sixty animals, cows, pigs, dogs, and rabbits. The majority of the animals not only survived the operation, but the remaining lung increased in size and became compensatorily enlarged, as in some cases of cirrhosis from atelectasis. Pneumothorax resulting from the operation soon disappears. Gluck believes that the indications for the operation would be found, in man, in grave pulmonary traumatism, irritative foreign bodies, and primitive, caseous patches. Apropos of the latter, it may be remarked that Dr. Fenger excised an echinococcus which had produced extensive pulmonary gangrene. The patient perfectly recovered. Tubercular cavities have been opened once, and the lung has been once incised for gangrene, but in both cases unsuccessfully. (Gaillard's Medical Journal, December, 1882.)

Nerve-Stretching. Dr. Chandler, of New York City, gives an analysis of four hundred and sixteen cases of nerve-stretching, which shows that this operation, though occasionally valuable in the treatment of neuralgia and some spasmodic affections, is of very questionable benefit in cases of central nervous disease.

Gynecology. Italy and America share the credit of recent advances in this department. The operations of oöphorectomy and hysterotrachelorrhaphy during the past year have been fruitful subjects of discussion. The removal of both ovaries to arrest the rapid growth of vascular fibroids of the uterus has now received the sanction of our best authorities at home and of the most distinguished gynecologists abroad. "To the brilliant conception of Blandell in 1823 is due the surgical procedure

by Batty in 1874," and Dr. Sims is of the opinion that it will be substituted entirely for the more formidable operation of extirpation. Hystero-trachelorrhaphy has slowly won for itself a name and place in surgery. Notwithstanding all the modern improvements, the operation of hysterectomy for malignant disease, both through the abdominal walls and through the vagina, remains most formidable, and may be considered as yet on trial. The cesarian section, though somewhat antiquated, is a well-recognized procedure, "and if surgeons were as careful to clear out the peritoneal cavity and suture the uterus with silver wire, there is no reason why it should not be as successful as any other in the whole range of abdominal surgery." And should the uterus be ruptured in parturition, and the fetus extruded in whole or part into the peritoneal cavity, then laparotomy should be done at once and the patient treated as after the cesarian section.

Reproduction of Bone. The reproduction of bone after resection and exsection remains one of the marvels of surgery no less than an illustration of its highest art.

Surgeon-General Longmore reports, in the British Medical Journal, 1882, a successful case of trephining for gun-shot injury of the skull. Hunter McGuire, revising Longmore's classical article in Holmes's Surgery, enforces the importance of drainage in this class of injuries. Prof. W. T. Briggs, of Nashville, Tennessee, at the last meeting of the American Surgical Society, said he thought trephining was called for in severe bruises of the skull, to allow the escape of inflammatory products.

Ligature of Vertebral Arteries for Relief of Epilepsy. The treatment of epilepsy by operative procedure is one of the innovations in surgery which is likely to be of eminent service. We are indebted to Dr. Alexander, of Liverpool, England, for our knowledge of the operation, he having performed it up to July, 1882, twenty-one times, with the following results, viz: three upon whom the operation had been done, have been quite well for nearly a year; nine others have been so free from

epileptic convulsions and for such a space of time that it may be said that a cure has resulted; and eight have improved so steadily that the operation would be justifiable were no better results never obtained. In all these cases only one death occurred as the immediate result of the operation. He states the difficulties of the operation are easily overcome by practice, and believes this operation should take its place as a recognized procedure for the cure of epilepsy when other judicious means have failed to relieve. (Brain.)

Shock. The peculiar and often fatal condition denominated shock, which is incident to all grave surgical operations, is a pathological condition not clearly understood until recently. Goltz, of Strasburg, has shown it to be due to reflex paralysis of the heart and abdominal vessels incident to injury of the functions of the nervous system. Of the peculiar change which takes place in a nerve or a nerve center, the result of shock, we yet remain in the dark, as much so as in regard to that change which takes place in a nerve, the result of stretching. In order to overcome this reflex paralysis and restore the proper balance to the nervous system, we can, upon the soundest philosophical principles, use hypodermic injections of alcohol, ammonia, but especially ether, atropia, and strychnia. Your reporter would respectfully deprecate the use of digitalis and quinine, which has been advised by some men of distinction. It has not been proven that digitalis will maintain the heart's action; but in full and legitimate doses it will certainly paralyze that action. In the Louisville Medical News for September 9, 1882, in an article entitled, "Quinine as a Surgical Remedy," the following deductions were made: (1) In antipyretic doses quinine weakens the heart's action; (2) it diminishes the number of white blood-cells and paralyzes their movements; (3) it lessens the power of the red blood-cells for carrying oxygen, and is debilitating to the brain-cells.

Anesthetics. So many deaths having occurred from the use of the various anesthetics during the past year, it becomes a matter of the highest importance that we exercise the greatest care and

caution in their use. "The shorter the time the patient is under the influence of an anesthetic and in the hands of the operator the better. It is equally a matter of importance that an operation should be quickly done; nor are rapid manipulations incompatible with gentleness or careful after-treatment; moreover, nausea and shock resulting from prolonged anesthesia and exposure of deep structures are minimized by the skill of a quick operator." It is of eminent service in preserving the heart's action by premising the inhalation by the hypodermic administration of atropia. With this view, also a minute quantity of nitrite of amyl has been suggested to be inhaled along with the lethal agent.

In conclusion, permit me to quote from a recent writer: "Surgery claims for herself her full share of the wonderful inventions and improvements of this energetic age, and no one may foresee what wonders the next decade may bring forth. She is going on in nearly parallel lines with her sister medicine, having the same terminus to reach, viz. the relief of human suffering; and at the many points where the lines closely approximate we get the benefit of the recent therapeutical discoveries which she has made, while on the other hand we more than repay the debt by the help we are frequently called upon to give."

HOPKINSVILLE, KY.

NOTE.—In the preparation of the foregoing paper, I am indebted to Prof. D. W. Yandell for the help afforded by many medical journals, both domestic and foreign.

W. M. F.

Reviews.

Legal Medicine. By CHARLES MEYMOTT TIDY, M.B., F.C.S., Master of Surgery, Professor of Chemistry and Forensic Medicine and Public Health at the London Hospital; Medical Officer of Health for Islington; late Deputy Medical Officer of Health and Public Analyst for the city of London; etc. Philadelphia: Henry C. Lea's Son & Co. 1882. 8vo. Pp. 636.

Certainly not a tithe of the more than three thousand students that the recent March exercises of American medical colleges have converted into doctors authorized to practice medicine have been adequately instructed in legal medicine, and yet every intelligent physician will recognize the appositeness of the sentiment of the opening paragraph of the author, in his introductory lecture to his class, to-wit: "I pray your more than ordinary attention to the subject-matter of this course of lectures. It were well for us thus early to grasp the importance and the responsible nature of our task. The subject is not one that admits of postponement for a more convenient season. Your first day in practice—the first ring at your bell—may bring you face to face with a medico-legal case requiring all your thought and acumen, powers of observation, knowledge of facts, habits of induction. The body of an infant is discovered; was it born dead, or alive? A lifeless wounded body is found; were the wounds inflicted before or after death, and were they homicidal, suicidal, or accidental? A body is recovered from the water; was it alive or not when immersed? A girl lodges an accusation of rape; are there any or no grounds for such accusation? You are called to see a patient; is his illness natural disease or the effects of poison? These are examples of many hundred questions, any one of which, I say, your first day's practice may require you to consider. For the practice of forensic medicine is one that devolves on the profession generally, and not on a few in partic-

ular. I admit that in any great case experts (as they are called) are usually consulted; but for the actual facts and conditions, the appearances and the like, observed at the moment, the general practitioner must, as a rule, be alone responsible." Where a laborer sees his field of labor so clearly, and indicates the nature and importance of his work so pointedly, we should anticipate that when his work were done it would be well done, and, accordingly, we find in the author's book before us a superior presentation of the principles of law as related to medicine, and a full and complete illustration of their practical application.

This volume treats of evidence, the signs of death, identity, the causes of death, the post-mortem, sex, monstrosities, hermaphroditism, expectation of life, presumption of death and survivorship, heat and cold, burns, lightning, explosives and starvation—fifteen subjects—the legal bearings of which may involve nearly all the relations that law bears to medicine. Other volumes are promised, though they are yet unwritten; but this fact does not lessen the intrinsic value of the work already completed, nor stamp it as fragmentary, the several subjects introduced being exhaustively treated.

The matter of the volume is the same that constituted the basis of the author's lectures on Forensic Medicine at the London Hospital in the summer of 1881, but the lecture form has been dropped, except in the first chapter where it was retained to facilitate the discussion of the various topics covered by it, which could not be so conveniently dealt with in other manner. The principles of medical jurisprudence are the same always, but there is continual evolution in their application to the affairs of life; and our author has been exceptionally industrious in searching the medical and legal literature of the continents for the most recent valuable illustrative cases touching all his themes, and this gives a freshness and flavor of fullness to his work that is both attractive and satisfying.

Some of the peculiarities of the arrangement of the matter of the volume also impress one as a decided improvement. For example: The cases illustrative of the text in each chapter, what-

ever their nature and extent, are placed in numerical arrangement at the end of the chapter, and reference to them in the text is made by number only, which not only has the advantage of not necessarily interrupting the argument as the discussion progresses, but saves repetition.

Chapter I occupies twenty-six pages, and deals with the Process of Law, Evidence, the Witness Box, and Preparation for Giving Evidence.

The Signs of, and the Appearance Produced by, Death occupy the second chapter, and cover one hundred and sixteen pages, including seventy-three illustrative cases gleaned from books, reports, and periodicals, many of them quite recent and not included in other treatises on the subject.

Chapter III, on Personal Identity, covers one hundred and thirty-eight pages, and has eighty-two illustrative cases, many of them also recent, and includes the celebrated Tichborne case.

The fourth chapter is a short one, eleven pages, on the Causes of Death.

The fifth chapter, twenty pages, instructs Concerning the Post-mortem as a Medico-Legal Inquiry, and is ended with two tables, the first giving the average measurement and weight of the various organs of the body, and the second detailing the appearance of the fetus at different periods of utero-gestation.

Sex, Monstrosities, and Hermaphrodism are treated in the sixth chapter, sixty-six pages, having one hundred and thirty-seven illustrative cases, a large percentage of them being extracted from American medical journals.

Chapter VII, on Expectation of Life, Presumption of Death and Survivorship, is an instructive chapter, each topic being specially considered in a subdivision of the chapter. It has eighty-six illustrative cases, many of them drawn from the operation of modern accident assurance companies.

Chapter VIII, thirty-four pages, treats of Heat and Cold (considered medico-legally); has forty-six illustrative cases.

Chapter IX, forty-four pages, on Burns and Scalds (considered medico-legally); has forty-seven illustrative cases.

Chapter X, twenty-four pages, on Lightning; has forty-nine illustrative cases.

Chapter XI, forty pages, on Combustibles and Explosives; has thirty-three illustrative cases, some of which are quite curious.

Chapter XII, and last, forty-four pages, on Starvation; has fifty illustrative cases, Dr. Tanner's fantastic forty days' fasting in New York a couple of years since being among them, but the author very properly states that the results of this voluntary experiment are stripped of much of their importance and value because the performance was not under strict medical supervision.

This brief outline of the contents of Mr. Tidy's volume will advertise the reader of the scope and drift of the author's teaching. And even if the general practitioner feel no ambition to examine a work of this kind for its legal bearings, he should, especially if a young man, carefully study it for the practical lesson it contains illustrating the difference between the rigid rules of investigating a medical problem for the exact requirements of the law and the imperfect, slipshod manner in which much of the hunting for facts and constructing an argument is done for an address or an essay. Whatever will teach doctors better habits of observation and more rigid rules of induction is worthy of their earnest attention, and this book belongs to that category. It is fully indexed, and the publisher's work is handsomely executed.

J. F. H.

The Systematic Treatment of Nerve Prostration and Hysteria. By W. S. PLAYFAIR, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College; Physician for the Diseases of Women and Children to King's College Hospital; late President of the Obstetrical Society of London. Philadelphia: Henry C. Lea's Son & Co. 1883. Small 8vo. Pp. 111.

Dr. Playfair, having read with the spirit and the understanding the great work of Dr. Weir Mitchell on "Fat and Blood, and How to Make Them," saw in its admirable teachings a promise of rescue for a suffering and almost hopeless class of cases

quite as numerous in England as in the United States. Comprehending quite clearly the rationale of Dr. Mitchell's method of treating the neurasthenic hysterical women, he formally inaugurated the style of management in London in October, 1880, and the fame of his success was such that inquiries from all parts of the kingdom of Great Britain in a year or two came in such numbers that he published a pamphlet to meet the demand for details which it had become burdensome to answer privately; and he has performed this task with that scientific acumen, that practical skill, and that perspicuity of diction that is characteristic of the man. The publishers have re-produced this pamphlet in a neat little volume, which the profession will find an excellent epitome of this important method of management. J. F. H.

An Introduction to the Study of Organic Chemistry. By ADOLPH PINNER, Ph.D., Professor of Chemistry in the University of Berlin. Translated and revised from the fifth German edition by PETER T. AUSTIN, Ph.D., F.C.S., Professor of Analytical and Applied Chemistry in Rutgers College and the New Jersey State Scientific School. New York: John Wiley & Sons. 1883. 8vo. Pp. 403.

The translator has this for the first paragraph of his preface: "As a teacher of organic chemistry, I have felt the want of a small book on the subject. There is no lack of dictionaries and encyclopedic works on organic chemistry, but they are too large for use in a college course. The few shorter English text-books are not, so far as my experience goes, well suited for teaching." And to supply a text-book such as will fill the hiatus the translator presents Prof. Pinner's work in an English dress, with the author's smile of approbation. The work is quite popular on its native heath, and, from its natural and thorough methods of approaching the study of the complicated organic compounds, is likely to be of good service here to such as need help in this line. As the table of contents names between one thousand and four hundred and one thousand and five hundred organic com-

pounds to be analyzed and studied, the general practitioner will promptly decide that while it is doubtless full of good things for the specialist, it is for the specialist only.

J. F. H.

The Medical and Surgical History of the War of the Rebellion. Part III, Vol. 2, Surgical History. Prepared under the direction of Joseph K. Barnes, Surgeon-General, United States Army. By GEORGE A. OTIS, Surgeon, United States Army, and D. L. HUNTINGTON, Surgeon, United States Army. First issue. Washington: Government Printing Office. 1883.

This large volume of one thousand and fourteen pages is remarkable not only for its size, but for its wonderful collection and digest of cases and excellent illustrations. The present volume completes the surgical history of the Medical and Surgical History of the War of the Rebellion.

Chapter X, the first in the book, presents with thoroughness and great detail the subject of "Wounds and Injuries of the Lower Extremities."

Chapter XI. "Miscellaneous Injuries."

Chapter XII. "Wounds and Complications." This chapter is largely devoted to primary and secondary hemorrhages, ligations, tetanus, gangrene, traumatic erysipelas, and pyemia.

Chapter XIII relates to the use of anesthetics in the army. Anesthetics were administered not less than in eighty thousand instances. The opinions of a number of surgeons are given as to the relative safety of anesthesia by chloroform, by ether, and by a mixture of chloroform and ether. One point upon which they agree is the importance of keeping the patient under the influence of chloroform as short a time as possible, on account of its depressing action. In a large number of cases given the per cent of deaths due to chloroform was 5.4 per 1,000; due to ether, 3.0 per 1,000; due to a mixture of chloroform and ether, 2.4 per 1,000. The cases in which death occurred are given with a short history, so that any one may study them and draw his own conclusions. The action of the various anesthetics as

to time required for anesthesia, as to vomiting, excitement, prostration, etc., are given in a table of five hundred and ninety-seven cases of anesthesia. Prostration is reported in 13.3 per cent in chloroform cases, and 11.1 per cent in ether cases. Chloroform was used about twice as often as ether.

Chapter XIV is a consideration of the medical staff and the *materia chirurgica*.

Chapter XV relates to the transportation of the wounded by ambulance, by railroad, and by water.

At the close of the volume is given a list of plates, a list of operators and reporters, and a subject-matter index of the three volumes of the surgical part. The plates are certainly works of art, especially the chromo-lithographs illustrating the subject of gangrene.

To D. L. Huntington, Surgeon, United States Army, was assigned the duty of completing this work, begun by the late Surgeon Geo. A. Otis, and he has performed the laborious task well. Surgeon Huntington, in his preface to the volume, says: "It is hoped that its short-comings may not seriously impair or detract from the beauty and harmony of the master-piece, which must remain a living monument to the intelligent industry, perseverance, and professional learning of the late Surgeon George A. Otis."

A. M.

Experimental Pharmacology. A Hand-book of Methods for Studying the Physiological Actions of Drugs. By L. HERMANN, Professor of Physiology in the University of Zürich. Translated with the author's permission, with notes and additions, by ROBERT MEADE SMITH, M.D., Demonstrator of Physiology in the University of Pennsylvania. With thirty-two illustrations on wood. Philadelphia: H. C. Lea's Son & Co. 1883. Small 8vo. Pp. 201.

The translator makes the prefatory statement that his work was undertaken to furnish the student with a guide that would enable him to pursue his studies of the physiological action of drugs to advantage without the aid of a teacher, and this is exactly the scope of the volume. It is divided into two parts:

I. Study of the action of poisons on isolated organs.

II. Investigation of the general action of poisons.

The author defines a poison thus: "Those substances are called poisons which, when introduced into the animal economy, produce disturbances of its normal functions;" which in effect make poisons and medicines synonymous terms, and this is, scientifically, as it should be. The parties for whom this little volume is intended will find it a most valuable aid in telling what to do and how to begin, continue, and finish the service to which it addresses itself.

J. F. H.

A Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON, M.D., Edin., F.R.C.P., Lond., late Lecturer on Materia Medica at St. Mary's Hospital Medical School, etc. Third American edition, revised by the author. Enlarged and adapted to the United States Pharmacopeia by Frank Woodbury, M.D., Physician to the German Hospital, Philadelphia. Philadelphia: Henry C. Lea's Son & Co. 1882. 8vo. Pp. 526.

A book on therapeutics for which there has been a *bona fide* professional demand for three editions in five years must be a good book, and this is the indorsement that has been given to Farquharson's Therapeutics and Materia Medica by the medical fraternity in the United States. The special characteristics that commended the first edition have been continued, and the third revision is marked by the same conscientious attention to details and precision that gave the other issues of the book its good standing. Students and practitioners, who find their easiest lessons in therapeutics in the mercenary circulars of manufacturing pharmacutists, will miss the name of some of their favorite remedies in Farquharson's catalogue of drugs whose medical powers he portrays; but this should be esteemed a merit, not a fault, of the work. As a compend of reliable therapeutics and materia medica in 1882, this third edition of Farquharson and Woodbury may be counted as the best in the English language.

J. F. H.

Clinic of the Month.

PRINCIPAL CHANGES AND DIFFERENCES IN THE STRENGTH OF PREPARATIONS OF THE NEW AND OLD PHARMACOPEIAS.—(Dr. C. E. Clacius, in the Chicago Medical Journal and Examiner for April.) The following table indicates so many parts in the hundred, as one grain of arsenious acid in one hundred grains of the solution:

STRONGER IN THE NEW ISSUE.	1870.	1880.	WEAKER IN THE NEW ISSUE.	1870.	1880.
Acidum aceticum,	35.	36.	Acetum lobeliæ,	13.	10.
“ “ dilutum,	4.5	6.	“ opii,	16.3	10.
“ hydrochloric, dilut., . .	7.8	10.	“ sanguinariæ,	13.	10.
“ phosphoric, dil.,	9.8	10.	“ scillæ,	13.	10.
Alcohol, dilutum,	39.3	45.5	Acidum nitricum dilutum, . .	11.6	10.
Confectio sennæ,	8.32	10.	“ sulphuric, dilut.,	12.1	10.
Extractum aconiti,	Leaf.	Root.	“ sulphurosum,	6.4	3.5
“ conii,	Leaf.	Seed.	Ferri et quiniæ citras (quinine),	16.	12.
Liquor acidj arseniosi,	0.87	1.	Liquor potassæ,	5.8	5.
“ ferri chloridi,	35.	39.	Spiritus camphoræ,	14.	10.
“ potassæ arsenitis,	0.87	1.	Tinctura aconiti,	47.6	40.
Liquor pulvis,	10.	12.16	“ aloes et myrrhæ,	12.	10.
Spiritus anisi,	6.8	10.	“ arnicæ,	23.	20.
“ cinnamomi,	8.	10.	“ colombæ,	15.	10.
“ juniperi,	2.	3	“ cannabis indicæ,	36.	20.
“ lavandulæ,	2.	3.	“ cinchonæ,	25.	20.
“ menthæ piper.,	6.4	10.	“ cubebæ,	15.	10.
“ menthæ viridis,	6.4	10.	“ guaiaci,	23.	20.
“ myristicæ,	2.	3.	“ ammoniata,	23.	20.
Tinctura aloes,	3.3	10.	“ nucis vomicæ,	3.5	2.
“ asafetidæ,	16.	20.	“ serpentariæ,	15.	10.
“ cantharidum,	3.5	5.	“ veratri viridis,	55.	50.
“ caustici,	3.5	5.	“ zingiberis,	31.8	20.
“ catechu composita,	7.	12.	Unguentum acidj carbolicj, . .	12.	10.
“ conii,	Leaf.	Seed.	“ belladonnæ,	12.	10.
“ gaulth.,	15.	20.	“ gallæ,	12.	10.
“ humuli,	17.5	20.	Vinum opii,	13.	10.
“ myrrhæ,	12.	20.	“ rhei,	14.	10.
“ opii,	9.	10.			
“ opii deodorata,	9.	10.			
“ quassia,	6.	10.			
“ rhei,	10.	12.			
“ valerianæ,	15.	20.			
“ valerian. ammon.,	15.	20.			
Unguentum acid. tannic, . . .	6.	10.			
“ hydrargyr. ammoniat, . . .	8.	10.			
“ hydrargyr. oxid. flav., . .	8.	10.			
“ zinci oxydati,	16.	20.			
Vinum ergotæ,	12.5	15.			

TUBERCULAR INFECTIONS.—Professor Baumgarten discusses very fully, in the *Zeitschrift für Klinische Medicin* for 1883, the various methods in which tubercular infection can take place,

assuming, of course, the bacillus to be the means of contagion—an assumption, by the way, which is far from being proved.

There are three ways in which such infection might take place: first, by respiring minute particles of dried sputum, which are probably floating about in the atmosphere; secondly, through the food, by eating the flesh of tuberculous animals, and especially taking the milk of tuberculous cows; and thirdly, hereditary, the contagium being transmitted from mother to fetus.

As regards the infection by respiration, Tappenheimer, Weichelbaum, and others have shown that dogs made to breathe dried and powdered sputum acquire an affection having many resemblances to, if it is not exactly identical with, tuberculosis. Many facts, especially clinical ones, point to this as being an unusual method, if indeed it occurs in man. The infection through food is regarded as possible, though there is no proof of it.

The third method of infection, or rather communication from mother to fetus, is regarded by him as open to the fewest objections, the principal difficulty of accepting this theory being that in the majority of cases the disease does not appear until the commencement of adult life.

He assumes that during the development of the fetus a number of organisms are incorporated among the fetal cells, but that their growth is suppressed by the increase of the fetal cells, and as soon as the growth of the latter has stopped the bacilli are able to grow and multiply, more especially in any part which may have been weakened by injury or other causes. He, however, makes no mention as to how the organisms get incorporated with the fetal cells, whether they are present in the ovum at the time of the impregnation, or whether the infection takes place at some later time; and if in the latter case no proof has been given that bacilli can pass through the walls of the capillaries from the blood of the mother to the blood of the fetus, though this is the probable explanation, yet in animals poisoned by the bacillus of splenic fever (as shown by Koch, Strauss, Chamberland, and others) the fetus present in the uterus at the time shows no trace of organisms.

THE PRACTICAL IMPORTANCE OF ATTENTION TO MINUTE PHYSIOLOGICAL PRINCIPLES.—Dr. Andrew Clark, in a recent lecture before the Clinical Society of London, spoke thus of one of its shortcomings:

But of all the defects in the work of the society, the one which I consider to be at once the most important and the most inexplicable is the seemingly studied disregard, in the treatment of a patient's malady, of those minute conditions of his daily life, which practically make and unmake health; so that, special management being almost nothing, and special medication almost every thing, it would seem as if physiological principles were of no account in therapeutics. But a more critical study of disease will soon convince us that this inference is unsound and its application incorrect. Putting aside, for the moment, inherited affections and parasitic maladies of whatsoever sort, I shall assume that chronic disease, a state of parts and not a thing interposed between them, is the eventual outcome of continued violation, conscious or unconscious, of physiological laws as they exist for the race or as they are conditioned by the peculiarities of the individual organism. I shall further assume that those violations are not exceptional and gross, but daily and minute, and that their effects, infinitesimal from day to day, become invisible only after longer periods of time, and so escape recognition except by those who are trained to discern the causal connections of subtle things. And I shall furthermore assume that the organism in virtue of the inherent forces maintaining its solidarity tends to repair existing and to repulse threatened disorders, and that, when placed in favorable and liberated from unfavorable physiological conditions, this tendency issues and ends in successful action.

And now let us take for illustration a case of primitive uncomplicated gastric catarrh. Assuredly it does not come without a cause, and it is not introduced from without, but begotten within. It is, in fact, engendered out of a more or less prolonged and petty violation of the laws of stomach digestion, and it is maintained by conditions which, although apparently too trivial to be worthy of notice, are yet sufficient to hinder the formation of healthy peptones, and to traverse the reparative powers of the organism. What is ordinarily done in such a case? The patient is told in a vague sort of way to have a light and nourishing diet, to take daily exercise, to avoid anxiety and overwork, and to try bismuth and alkalies, with an occasional alterative aperient.

Now, speaking, if I may be permitted to do so, from my own experience, it is certain that in such a case management is of more moment than medicine; and that, without a rigid and even minute obedience to the physiological conditions of healthy digestion, the chances are small of a speedy and permanent recovery from the gastric catarrh.

But the instruction of "a light and nourishing diet" admits of the widest diversity of interpretation; and with the most loyal desire for literal obedience, the patient, according to his age, habits, and status in life, may be unwittingly guilty of doings the most conflicting and injurious. He may eat too often or too seldom; his food may be fresh or preserved, too highly seasoned or too insipid, too concentrated or too bulky. He may take too much liquid or too little, too often or too seldom, too hot or too cold, effervescent or still. And without a conscious, but yet real and great departure from the intention of his instructors, he may frequently refresh himself with cups of tea and coffee, and make glad his heart by incidental glasses of wine or of beer.

Now, there is a right way and a wrong way in the management of every such case; and, although they lie so near each other, and are so much alike that the distinction between them is not easy of discernment, it is necessary that the distinction shall be made. For it is upon a correct giving, or not giving, minute attention to the physiological conditions affecting the quantity, quality, and character of the solid and liquid food, the times and circumstances of eating and drinking, the amount of exercise, work, and sleep, and the adequate discharge of the excrementitious functions, that our work will succeed or fail, that our case will turn for evil or for good, and that the patient will either recover his health or drift into permanent valetudinarianism. If time permitted, and the occasion would justify it, I could easily produce from the records of our common experience in every department of medicine illustrations the most various and conclusive of the peril of neglecting and the profit of following minute physiological considerations in the treatment of disease. On this occasion I shall content myself with one.

About eight years ago I was summoned to a consultation in South Kensington, where, in presence of the patient and his family, I met Dr. Andrew Stephen and Dr. Taylor. It appeared that the subject of our consultation, having been ill for many weeks and growing rapidly worse, had been brought from Wales to London for further advice, and that the advice given was opposed to the feelings and convictions

of the patient and his friends. The family therefore refused, without the help of another opinion, to carry out the proposed treatment, and accordingly, with the acquiescence of the doctor, I was summoned to examine the patient and to state my views, without previous consultation with my colleagues, but in their presence.

The patient, a tall, stout man of about sixty, with flushed face, suffused eyes, anxious countenance, and swollen legs, sat leaning forward in an arm-chair, partially undressed, breathing laboriously, and apparently in much distress. He complained of shortness of breath and palpitation, of confused sensations in his head and occasional dizziness, of general weakness and of indescribable depression.

The patient had a loaded tongue, with fetid breath, and although troubled with nausea was able to take freely of food and drink. The abdomen was distended and the liver distinctly enlarged. There were frequent discharges of fetid gases from the bowels. The feces, discharged twice or thrice daily, were dark, offensive, and unformed. The urine was scanty, pale, faintly acid, of density 1010, and slightly albuminous. The heart was large, flabby, murmurish, frequent, quick, and irregular in time and force. The pulse was small, thready, irregular, and beating over a hundred times in a minute. The legs were edematous, bluish, red, and cold. The cervical veins remained continuously distended. Both lungs were congested at their bases, and there was frequent cough with frothy and sometimes sanguinolent expectoration. Nothing worthy of note was discovered in the nervous system.

Inquiring now as to the treatment which was being pursued, I was told that, in the opinion of all who knew him and of all the doctors, except the last who had been consulted about him, that the patient was a man of naturally delicate constitution, that he needed constant keeping up, and that his chances of life were in direct proportion to the amount of support that he could take. Accordingly he was taking food and wine every second hour, had iron, quinine, and strychnia three times daily, and, being increasingly thirsty, he drank milk and soda-water without much regard to frequency and amount. Questioned as to my opinion of the patient's malady, and urged by my colleagues to say exactly what I thought, I replied that he was a man with deteriorated but not seriously diseased tissues and organs, and that he was in peril of death, not so much from his malady as from the means used for its cure; that he was being poisoned by food and wine, that he was in the condition of a fire having more coals put upon it than it could burn, and that his chimneys being choked, he was in near danger of being suffocated with his own smoke.

My colleagues agreeing with this view of the case, and the patient, after much discussion and explanation, assenting, he was placed upon a precise and severe regimen. He was ordered to have four simple nursery sort of meals in the course of the day; to have an ounce of brandy, diluted with eight parts of water, at dinner and supper; to be restricted to two pints of liquid in the course of the twenty-four hours; to take nothing of any sort between meals; and, as soon as he was able, to move about the rooms in which he dwelt. In the way of drugs he was directed to take, for a week or longer, a grain of calomel at night, followed by a saline aperient on waking in the morning; and to have, twice or thrice daily, two hours after food, infusion of gentian with bicarbonate of potash, iodide of potassium, tincture of digitalis, and aromatic spirits of ammonia.

For the first three days he was no better for this treatment. It tried him severely through the restriction of his liquids, and, declaring himself worse for it, he threatened to discontinue it and to return to his former ways; but, on the fifth day, he began to improve, and then, his confidence being gained, there was no further difficulty in continuing the treatment, which, when digestion improved, was added to by the administration of reduced iron with meals.

At the end of three months the patient declared that he was well, and all that could be said against him was that he had a weakish heart, that he was breathless upon exertion, that he had rather inadequate kidneys, and that, to maintain his sense of well-being, he was compelled to live by rule. This rule was a midday dinner, with an ounce of brandy in half a pint of water; a moderate breakfast and tea, with eggs, or poultry, or fish; extreme moderation in the use of fluids; tepid sponging, warm clothing, gentle exercise, and early hours.

Within a year I heard of the patient being in fair health, and managing his iron works in Wales. What I have since heard of him from time to time is instructive. Occasionally losing his faith, or lacking strength to follow his rules, he returns to the freedom for which he longs, frequents society, dines late, rejoices again in his wine, and has his heart's desire. For a time all goes merrily and well, and he breaks sarcastic jokes over the heads of physicians. But, sooner or later, the urine diminishes in density and becomes albuminous; the heart loses its strength and regularity; the breathing is oppressed; the nights are sleepless; till at last, after much suffering, his obstinacy is conquered, and reconvinced and humbled and penitent he returns to his obedience, and again recovers his health.

Such cases are common enough; and my experience forbids me to

doubt that, in fevers and inflammations, in hemorrhages and acute diseases of every sort, the issue of particular cases turns oftener than we are perhaps ready to admit upon an adequate understanding of the physiological principles applicable to the removal of the conditions imperiling life, and upon the resolution and patience, the minuteness and fidelity, with which they are enforced.

And such considerations are true and important, not only in diseases jeopardizing life, but also in common disorders which, although devoid of serious peril, invade our comfort, hinder our work, and dull our joys in life. I do not forget that, through hereditary influences and unsuitable but inevitable environments, many persons are doomed to be constantly ailing without being ever really ill; that their normal state is one of suffering; that no physiological readjustments and no specific medication can give to them the pleasant sense of health; and that attempts to effect what is impossible issue only in greater sufferings or in disaster; but, making full allowance for such cases, there remain countless numbers who are willing and eager to make any and every sacrifice necessary to recovery, and who are left to continue in suffering because the physiological principles and compensations applicable to their relief are derided, disregarded, or denied.

REMEDIES OF NATURE IN CONSUMPTION. (Felix L. Oswald, in *Popular Science Monthly*, May, 1883.)—About the comparative advantages of a dry and cold or moist and tropical climate opinions are divided, with a preponderance of arguments in favor of the former; but so much is certain, that in all latitudes of the temperate zone the disease known as pulmonary consumption is caused by the breathing of vitiated air, and can be *subdued* by out-door exercise. In certain cases *cured* would be an ambiguous term. The respiration of vitiated (azotized and dust-impregnated) air results in the corruption of the pulmonary tissues, and finally in a process of disintegration that fills the structure of the lungs with ulcerous cavities. These cavities often cicatrize, but it is not probable that they can be entirely healed, *i. e.*, that the wasted tissues can be reproduced. Yet in all but its last stages the *progress* of the disease can be arrested by out-door life alone. The voice of instinct adds its testimony to the teaching of science. In the language of our

senses, every feeling of discomfort suggests its own remedy. If the proximity of a glowing stove begins to roast your shins, the alarmed nerves cry out—not for patent ointments, not for anti-caustic liniments and “pain-killers,” but for a lower temperature. Nothing else will permanently appease them. Millions of prisoners, school-children, and factory-slaves, pine for lung-food as a starving man yearns for bread; and that hunger can not be stilled with cough-pills, but only with fresh air.

There are adjuvant remedies which will be noticed hereafter, but their co-operation is not indispensable. Without a sufficient supply of wholesome food, without warm clothes, without domestic comforts, under the disadvantage even of excessive hardships and protracted fasts, a three months’ mountain excursion, with or without tents, will cure all the symptoms of the disease with the exception of an accelerated pulse and a panting respiration during active exercise. Canadian trappers who leave their supply-camp with a bad cough get rid of it on the fifth or sixth day “out.” They may get foot-sore and, if game is scarce, hipped and homesick, but the feeling of haleness about the chest continues. Night-frosts do not affect it. Fatigue rather improves it. They may wake up with a feeling of frost-cramp from their chilblained toes to their shivering knees, but the lungs are at ease; no cough, no asthmatic distress, no stitch-like pains, no night-fever. An old campaigner would laugh at the idea of “colds” being taken in the open air. He knows that they germinate in close bedrooms and flourish in musty beer-shops, but vanish in the prairie-wind. If he is a government teamster and sells his meat-rations for brandy, he may know that sun-heat and fire-water are burning his candle at both ends; he may see trouble ahead, but he is sure that it will not come in the form of lung-trouble. Koch’s lung-parasites do not thrive upon a fresh-air diet.

THE MANNER OF ADMINISTERING ETHER.—In the Medical News of April 14, 1883, Dr. Wm. Goodell, in concluding his remarks upon twenty-five cases of ovariectomy, says: “One of
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the chief lessons I have learned from my experience during the past year is to administer ether. Hitherto I have, in common with most American surgeons, given this anesthetic by a closed cone, in such a way that the patient breathed her own air over and over again. I am now disposed to think that this is a very unsafe mode, and that to it is due, in a large measure, the alarming prostration of the patient while undergoing the operation. For instance, among the twenty-five cases of last year, cases 70, 71, and 82, presented such profound symptoms of shock that the operation had to be suspended until hypodermic injections of brandy and of ether were made, and some degree of reaction had set in. In cases 70 and 71, it was indeed with great difficulty that the women were kept from dying on the table; while case 85 clearly died from edema of the lungs. Now, I do not find such alarming symptoms referred to in any reports of cases by British operators. I am therefore forced to the conclusion, that either under the strain of rivalry they do not operate in very desperate cases, or their mode of administering anesthetics is a safer one than ours. Fully impressed with this idea, I have lately been using Dr. Allis's improved inhaler, and have thus far found it to act promptly, safely, and economically.

PERMANGANATE of potassa seems to be the latest wrinkle among the medical quidnuncs. Injections of Condyl's fluid have long been well thought of for gonorrhea, and Drs. Ringer and Murrell (Lancet, January 6th) strongly recommend the pills as a cure for amenorrhea. It is said, however, that permanganate of potash when made up with any readily oxidized excipient, as glycerine, has an unpleasant way of "going off." If it should deflagrate when administered *per vias naturales* it would be startling. But then it is to be said, that if this reaction is a common result of such a combination their topical application to the uterine cavity might reasonably be expected to relieve amenorrhea.

Notes and Queries.

THE KENTUCKY STATE MEDICAL SOCIETY held its 28th annual session in Louisville, Kentucky, in April, with Dr. A. D. Price, of Harrodsburg, the president, in the chair. Dr. Coleman Rogers, of Louisville, chairman of the Committee of Arrangements, welcomed the organization to the city in a few cordial and graceful words. The formal reports of the several officers were then made, and followed by the president's address, which was delivered in a quiet, colloquial way, and was listened to with pleasure and profit by a large audience. He touched, among other topics, on the need of instructing the masses in the laws of hygiene and in the science of living in a way which will secure to them health and length of days. He insisted on the value to each physician, and in the aggregate to all other physicians, of a daily and accurate record of cases occurring in practice. He alluded to the hackneyed theme, as he expressed it, of medical education to administer a gentle but well-merited rebuke to the croakers on the one hand, who are ever busy, in season and out of season, lamenting the decadence of the profession; and the strong-arm-of-the-law men on the other hand, who would summarily correct all the evils of the present system by legislation. He was half inclined to the opinion that the evils complained of will correct themselves; that time will right the wrong, and "public sentiment, the great tribunal before which men prove themselves, will hasten a new order of things and urge on the meritorious work of a more thorough and complete course of instruction for those seeking to become physicians." He thought that suggestion had not done much toward this end, and legislation even less. It is nevertheless true that progress has been made and will continue to be. But the best schools can not manufacture brains; they can only

work up such material as is sent them. Let that be good, and then we shall have doctors who are "skilled in the discrimination of disease and trained in its therapeutics." He thought that many of those now seeking to enter the profession could more fitly direct their abilities to veterinary surgery, which offers a rich and most useful field, where the highest order of talent may find active employment. True to his locality and his raising, the president dwelt on the enormous value of the horses in the United States—placing it at \$800,000,000—of which he says \$15,000,000 are lost annually, lost for want of skilled veterinarians. Some of the speaker's hearers were puzzled to know whether one of the incompetents he had just described could be educated up to the point of being qualified to doctor Blue-grass horses.

With real Kentucky instinct he passed from horses to women, and urged the organization of a school for educating and training nurses. Skilled and trained nurses, he said, were the handmaids of the medical profession. He animadverted with due severity upon the habit of some physicians of directing opiates for the relief of pain, knowing as they do the dangers which attend the practice. He denounced in fitting words the crimes which are, alas! growing apace, of criminal abortion and the resort among the married to means to prevent conception. He favored legalizing prostitution and exercising the strictest surveillance over the unfortunate women as being, perhaps, the best way to control and lessen the social soil. He ended by complimenting the specialists, and thought that further division of labor could be made with advantage in many places in the State.

The foregoing is a mere abstract of Dr. Price's address. We wish our space would allow us to present it entire.

It is such addresses as this which the profession likes to hear, and while the topic perhaps is a good deal hackneyed, it is not the less necessary that it should be kept constantly in mind.

Dr. T. B. Greenley, of Orel, reported on the progress of *Materia Medica* and *Therapeutics*. This paper is published

elsewhere, and, coming from an experienced practitioner of careful observation and large opportunity, will attract attention.

Dr. J. A. Larrabee, of Louisville, in remarking on the merits of the paper, struck a key which gave back no uncertain note when he said: "Sometimes in our progress, however, it is best to call a halt for the sake of rest if nothing more. It seems to me that a committee should be appointed to report upon the efficacy of *old* remedies and the *new* uses of them by various modes of administration to meet various indications. It must be admitted that we are running to an extreme in the use of new remedies; and at the present time, if we indorse every thing that comes before us, we will soon have to choose of the medicines prepared instead of medicines in general to suit the disease. However paradoxical it may seem, it is just possible for us to take a step in advance in this matter by taking two backward. A discussion upon the proper use of the medicines we must rely upon in the treatment of disease would be quite as profitable as a discussion upon the subject of new remedies. A very important point entering into the consideration of medicinal effects relates to time and mode of administration: by different doses at different intervals different results are secured. We use ipecacuanha in one dose to provoke emesis, in another to check it; we use it to increase the tone of the stomach; we use it to cause increased secretion and fecal dejections when these have been arrested by some diseased process. This applies to all medicines. In other words, there is no fixed dose of any medicine. This is subject to modification with respect to time, manner, and mode of administration, according to the effect to be produced. Many practitioners fail to regard the elimination of medicine as an important factor. Some have their effects, and pass out of the system in a given period of time; others in quite a different period; therefore a continuous effect is acquired by knowledge of the period of elimination and attention to the interval between administration of doses. These and many other considerations make it impor-

tant that more attention should be given to our old, long-tried and reliable articles instead of spending time in this fruitless search for remedies (specifics)."

Dr. J. W. Holland, while agreeing with the preceding speaker in the main, called attention to the unreliability of manufactured preparations of the standard medicines, and particularly the unreliability as to quantity in quinine pills said to contain one, two, and three grains each. The speaker claimed to have knowledge that justified the statement that such were almost invariably of short weight, no matter by what manufacturer made. In many instances pills marked two grains contained but a fraction over one, and others varied accordingly. The purity of the alkaloid in many could not be warranted, not even commended. He referred to an analysis, which is to appear shortly in the medical press of Louisville, on which these statements are founded, this analysis having comprehended pills made by various establishments, not one of which is to be designated in the report.

Dr. W. M. Fuqua reported on Improvements in Surgery. This report appears elsewhere. Discussion of Dr. Fuqua's paper was confined to a consideration of the subject of antiseptics, and particularly the dangers attendant upon the use of iodoform.

Dr. J. M. Mathews, of Louisville, said: "There was one point that impressed me from the beginning, and I wish to call attention to it in order to elicit a discussion from the society. The author mentions that the ideal antiseptic has not yet been discovered, and in making this assertion he speaks of iodoform in disparaging terms because of the danger attending its absorption. In a special way I have used this agent for a number of years; and notwithstanding the fact that I have seen daily in medical journals and heard it spoken of as being dangerous, I have used it freely without once having reason to suspect that by its application I had done the patient harm. In treating diseases of the rectum I have used it freely, packing an ulceration with it as many as three or four times a week, and continuing this for three or four weeks, until a healthy action had been

excited. I have yet to meet a single case wherein any deleterious or dangerous symptoms followed as a consequence of its use. As to its local effect, I think no surgeon can have a doubt as to its excellence."

Dr. D. W. Yandell, said: "The point raised by Dr. Mathews is one of importance. What the chairman of the committee has said touching the dangers of iodoform does not apply to its application to the small surface to which it must be applied in cases of affections of the rectum, but to the absorption of the substance when used in enormous quantities. I do not infer from his remarks that he intended to say that iodoform used upon small ulcerating surfaces would be accompanied by any danger. I wish to confirm by my own experience the value of iodoform in rectal troubles. I have found it of especial use in the treatment of hemorrhoids after operation for removal by any of the usual methods. In some cases there is a good deal of active inflammation left, in others a sluggish condition of the parts, a calloused-edged ulcer, or much infiltration in the adjacent tissues. Under these circumstances, but more particularly in the acute ulceration that follows, I have almost invariably gotten good results from iodoform. I quite concur in the remarks of Dr. Mathews touching its harmlessness. I have never known a patient to complain of it, nor, in fact, any ill to follow from it at all. I think it, as a local application, has been much overrated because it has been used in far too many conditions. As has been said of Martin's bandage, the only trouble with it is that it does too much. I am sure that in many forms of ulceration, and particularly in venereal ulcers, it is a valuable addition to our surgical remedies." Dr. Yandell added that it was not unlikely that where iodoform used in a proper way produced toxic effects, the patient presented some idiosyncrasy to its use.

Dr. D. S. Reynolds, of Louisville, while quite agreeing with the gentlemen with reference to the importance of the use of antiseptics, recognizes a great difficulty in the want of a selection of the proper kinds of antiseptics for particular conditions.

Thus, the chloride of sodium is an efficient antiseptic in acute purulent inflammations of the mucous membranes, while boracic acid is applied with better results to those of a chronic form. Thymol and eucalyptol are of like benefit in the treatment of those inflammations which become septic by becoming purulent, as in the cavity of the middle ear, the tear-passages, and other similar conditions. The *aspergillus albicans*, which invades the external ear, is destroyed perhaps more readily by eucalyptol and thymol than by other agents, though boracic acid is not to be neglected in fungoid growths of this character. The *tinea tonsurans*, which invade the hair follicles, are quickly destroyed by boracic acid. When we are able to classify the germs we shall then be able to arrive at some definite conclusion as to the selection of the germicide applicable.

Dr. Holloway, of Louisville, thought it would be better to classify these remedies as germicides rather than as antiseptics. So far as iodoform is concerned, he looked on its action as simply alterative; the same is true of the local action of carbolic acid.

In speaking further of the subject, Dr. Fuqua related two cases that came under his own observation, in which the persistent use of iodoform resulted in mental derangement to such an extent as to make it necessary to withdraw it.

Dr. Andrew Sargent, of Hopkinsville, stated that, during his term of service as interne at the Louisville City Hospital, iodoform had been used according to Col. Seller's directions for the use of his eye-water; that in the venereal wards it had received the designation of the ward cologne, and, so far as his observation had extended, it had produced no injurious constitutional effects.

Dr. Preston B. Scott, of Louisville, was announced to make the report of the Committee of Obstetrics. He read instead a paper on the subject of Disorders of the Menstrual Function. "Many young women," said the speaker, "suffer from dysmenorrhea, and in fact the functional disorders of menstruation have steadily increased. Pain, scanty and irregular monthly flow are

the prominent features. Conditions which impair nutrition and depress nerve-force are the leading causes. The results are recurrent suffering, sympathetic disorders, reflex disturbances, and, in due time, local changes. In view of future married life, Emmet's tables show how large here is the field of preventive medicine. It is to this class of sufferers, and it is a very large one, attention is directed. A few days since, two young ladies, sisters, aged nineteen and twenty-one, came into my office looking the picture of blooming health. One had only a scanty flow, followed by severe frontal neuralgia after every monthly period. The other went to bed with fearful cramps for two days. They had been suffering thus for two years, and for the first time now had come to seek medical advice. Now Emmet has given us some valuable statistics showing how much the health and capabilities of women have been influenced by disorders of early menstruation. I asked a young society lady, not long since, how many of her friends suffered as she did? She answered, 'Nearly all of them suffer severely; many have to remain in bed.' These conditions, the speaker claimed, were due to the mode of life of women and girls at the present time. He cited the fact that it is no uncommon thing for as many as eighty girls and women to be seated in one room sewing in dress-making establishments in this city. Many others labor in factories from seven in the morning till six in the evening, in defiance of an undeveloped function struggling into healthful regularity. The speaker alluded to the deleterious effects of the forcing system of education prevalent in this rapid age. With respect to treatment it must ever be borne in mind that this function is a monthly cycle of nerve-force intensifying as it reaches its maturation, with a flow of blood and mucus, healthful, complete, and painless. To reach this end he directs his treatment to a period of apparent rest, a period of approach, and the period of actual flow. One of the chief difficulties the speaker has met has been to have patients keep their count and have a due regard to the circumstances of their living in so far as that influences the course of the flow. In the intervals their

pain is forgotten, and hence, as a class, they are fastidious in regard to the taste of the medicines. Arsenic, strychnia, iron in the form of lemonade, as recommended by Goodell, all serve a useful purpose when given with due regard to the indications. At the approach it will be found necessary to resort sometimes to sedatives, sometimes to stimulants; for the former the pulsatilla anemone has stood the test of six years' constant application. The principal indication in all cases, however, is to utilize the interval of repose in restoring to a proper balance the depressed nerve-force. Medicines alone will often fail.

Dr. J. M. Mathews, of Louisville, said: "One point in particular in Dr. Scott's remarks impressed me as of importance, and that was with reference to the reflex disturbances which sometimes occur in these cases of obstructed menstruation. Several years ago I met Dr. Scott in consultation in a case of this kind. It was then very singular to me, and at that time his instruction was so explicit and natural that I have never forgotten it. Before this girl could be examined it was necessary to break down the hymen, behind which was such an accumulation of offensive material as it had never been my experience to meet before. The relief which followed was immediate and permanent, affording an illustration of the value of determining exactly the existing conditions in each particular case."

Dr. William Bailey, of Louisville, suggested the importance of teaching patients the necessities that call for obedience to nature's laws. In the last twenty-five years physicians have gone to an extreme in the examinations of married women. Many of the disorders of the sexual system are dependent upon constitutional disease, not local trouble, and as such are better relieved by constitutional treatment. He objected to the physical examination of girls.

Dr. Pinckney Thompson, of Henderson, regarded the frequency of personal examinations as the besetting sin of the profession. There can be no doubt that local treatment, in many cases applied by ignorant and unskilled hands, is productive of many of the conditions from which womankind suffer. The

author of the paper did not, in his opinion, overestimate the injurious effects of the modern system of female education. Among girls raised in the country, who are not subjected to these conditions, such disorders are exceptional.

Dr. J. N. McCormack, of Bowling Green, read a paper on Hygiene, which appears on another page.

Dr. Thomas F. Rumbold, of St. Louis, by invitation, read a paper on the Treatment of Chronic Naso-pharyngeal Catarrh. Dr. Rumbold holds that chronic inflammation of the nasal mucous membrane is not like the inflammations of mucous membranes in other situations; therefore he holds that the general practitioner of medicine, while he may understand the usual effects of applications of medicines in situations in general, is not capable of treating inflammations seated here, unless acquainted with the action of drugs in this particular situation. The cause—at least one of the most prolific of causes—of inflammations here is cold, oft-repeated and neglected. He speaks of the modifications which age exerts upon the process as seated here; children and young persons show little inconvenience from exposure to a draft of air, while aged persons suffer quickly and severely. Men die from excesses, women from exposure. In order to successfully treat naso-pharyngeal catarrh, attention to these two points of lowered vitality in the two sexes must ever be borne in mind. Particular attention must be paid to the manner in which females are clad, and if this be not under the control of him who undertakes to treat such diseases, his reputation is likely to suffer in proportion to the failure of his treatment. In the means of applications of remedies to the disease he objects strongly to the douche. It can do no good, because it fails to make the application at the seat of the disease. It may be productive of harm, because it is unscientific. Dr. Rumbold objects to the application of water, either hot or cold, and maintains it is harmful because it is absorbed by the mucous membrane and produces a greater state of congestion in it than existed before the application was made. Three essential qualities should be possessed by all applications

made to the nasal mucous membrane. First, they should cause no pain; secondly, they should cleanse the surface; thirdly, they should be capable of transformation into such a form as to permit their application to every portion. All applications before being made should be brought to the bodily temperature, then they should be applied in the form of spray. Vaseline he recognizes as the best application with which he is acquainted. Two others exhibited and occasionally used were carbolic acid and eucalyptol.

Dr. W. O. Roberts, of Louisville, reported several cases of head injuries in which operative procedures had been rendered necessary. (The paper, along with the discussion to which it gave rise, will appear in the June number of this journal.)

Dr. Frank C. Wilson, of Louisville, reported two cases of tracheotomy, one being successful; the patient, a little boy of about seven years, being present in person. In November, 1881, Dr. Wilson saw the child at night. He had sometime previously been taken sick with diphtheria invading the nasal passages. A few weeks before his brother had diphtheria. The boy's condition in the evening did not seem to demand the attention of a physician, and Dr. Senteny had not been sent for. I explained to the father at once the dangerous character of the affection, and insisted that Dr. Senteny should be called. From that time till the operation was performed one or the other of us was with him constantly, and endeavoring by every means in our power to stay the disease. Nothing availing, and the little fellow growing worse, it was determined to perform it in the middle of the night. The incision was carefully and slowly made, and the hemorrhage stayed before the trachea was opened. The expulsive efforts excited by the passage of air into the opening caused renewed hemorrhage, which however soon ceased. A moist sponge was placed over the tube, which was cleansed about every two or four hours. The boy made a good recovery. The other case occurred in a younger child, and the operation was delayed until the last moment. In this case the child lived three days after the operation, and seemed to die as the result of

accumulations of mucus in the trachea and bronchial tubes. Dr. Wilson also exhibited an apparatus which he had designed to warm the air before its passage into the tube.

Dr. Pinckney Thompson reported two cases of recovery from the operation, in each of which no tube had been used. Other cases in which it had been used had resulted unsuccessfully. He regarded the tube as harmful rather than efficacious, looking upon it as a foreign body in a delicate situation, and in itself sufficient to produce harmful irritation.

Dr. R. W. Dunlap, of Danville, spoke of two cases operated upon by the late Dr. John D. Jackson, both of which recovered. He used the tube in both cases.

Dr. D. W. Yandell reported a case in which the tube had been worn for a period of seven years.

Dr. Seargent, of Hopkinsville, reported a case of strychnia poisoning, in which recovery occurred after the ingestion of twenty grains.

Dr. J. M. Mathews read a paper on Hemorrhage from the Rectum, a subject of great interest to practitioners every where; and, being treated entirely from a practical stand-point, it will be read in our June issue with interest.

Dr. W. C. Webb, of Bryantsville, read an instructive paper on the Treatment of Pertussis, which will be found of much practical interest, and also in June number.

Dr. J. A. Ochterlony reported on the Progress of Dermatology. This paper appears elsewhere.

Dr. W. H. Wathen, of Louisville, exhibited a case of hollow needles, which he had devised with special reference to the introduction of silver-wire sutures. The needles have different curves, adapting them to operations upon the perineum, vaginal walls, cervix uteri, and to staphyloplasty. These needles are constructed upon the same principle as those manufactured for the same purpose by Tiemann & Co., but possess qualities rendering them, in the opinion of their inventor at least, superior to any heretofore offered the profession.

The officers and committees for the ensuing year are as follows:

President—Dr. J. N. McCormack, of Bowling Green.

Senior Vice-President—Dr. J. M. Riffe, of Covington.

Junior Vice-President—Dr. J. M. Harwood, of Shelbyville.

Secretary—Dr. S. M. Letcher, of Richmond.

Assistant Secretary—Dr. J. S. Moore, of Lebanon.

Treasurer—Dr. H. Brown, of Hustonville.

Librarian—Dr. A. M. Vance, of Louisville.

Bowling Green was chosen as the next place of meeting.

Dr. Anderson then read the following resolution, which the Committee on Nominations recommended for adoption by the society:

Resolved, That the Kentucky State Medical Society receives with regret the resignation of Dr. L. S. McMurtry as permanent secretary.

Resolved, That the thanks of the society be accorded Dr. McMurtry for the able and faithful manner in which he has discharged his duties, and for his untiring devotion to the interests of the society.

The resolution was unanimously adopted.

The following Committee of Arrangements and Credentials was appointed for the next session: T. J. Townsend, chairman, Bowling Green; W. E. Hatcher, Bowling Green; J. F. McElroy, Bowling Green; Walter Byrne, Logan County; J. P. Thomas, Christian County.

The president then announced the following committees: On Finance, Dr. J. D. Neet, Versailles; on Medical Ethics, Dr. Andrew Seargent, Hopkinsville; on Improvements in Practical Medicine, Dr. T. P. Satterwhite, Louisville; on Improvements in Surgery, Dr. L. S. McMurtry, Louisville; on Obstetrics, Dr. J. M. Riffe, Covington; on Hygiene, Dr. J. J. Speed, Louisville; on Improvements in Pharmacy, Dr. H. A. Cottell, Louisville; on Materia Medica, Dr. J. P. Thomas, Pembroke; on Ophthalmology, Dr. R. M. Ferguson, Louisville; on Otology, Dr. Stucky, Lexington; on Dermatology, Dr. C. J. Walton, Munfordsville; on Epidemics, Dr. J. M. Harwood, Shelbyville; on Vital Statistics, Dr. R. W. Dunlap, Danville; Delegates American Medical Association, Drs. Reynolds, McMurtry, Ochterlony,

Roberts, Bealer, Brown, Riffe, L. P. Yandell, Thomas, Todd, Wathen, McCormack, Greenley, Crawford, and Scott.

The society then adjourned to meet in Bowling Green on the first Wednesday in May, 1884.

The meeting was certainly a profitable one. The papers were practical in character, and just from the hands of men engaged actively and continuously in the work they write of. The discussions partook of the same character, and thus good was done all round.

DR. DAVID CUMMINS.—Died, at his home in Louisville, April 15, 1883, Dr. David Cummins, aged fifty-eight years.

At a very large meeting of the physicians collected to express the esteem in which Dr. Cummins was held, many kindly and appreciative things were spoken of him by his colleagues. Among them we make room for a letter sent to the meeting by Dr. Yandell, which will convey to our readers some idea of the loss which has been sustained by the entire community in the death of this estimable gentleman and useful physician.

Mr. Chairman: Although not able to be with you, I feel that I must say something, if it be but a word, on the mournful occasion which brings you together. A little over a year ago the profession of Louisville assembled to pay a last tribute to one of its members who lived a life so blameless and so crowded it with good deeds and gentle offices that his taking off was deemed, and justly deemed, a public calamity. Dr. Cummins and I made part of the cortege which followed the remains of Dr. Foreé to the grave. We occupied the same carriage. On our way home he said, "Yandell, the circle is narrowing very fast. We have come to be counted among the older doctors. Bell and Hewitt and Brandeis alone rank us in age now. And somehow I feel that either you or I will go next. Our turn can't be long off. Your health is poor enough. Mine is worse. I'll be next, I reckon." Unconsciously he had foretold his doom.

Mr. chairman, the list of the dead grows apace. Within a very few years we have been called on to mourn the loss of seven men in our ranks, each of whom in his way was a leader genuinely great and thoroughly good. Lewis Rogers, George Bayless, my own venerated father, L. P. Yandell, Richard Cowling, Erasmus Foreé, John E.

Crowe, and to-day David Cummins. Better practitioners never labored any where. More dutiful sons, more affectionate fathers, tenderer husbands, more upright, more honorable, more useful men never trod these streets. I name them in the order in which they fell. For where all were so brave, so manly, so strong, so gentle, so good, so true, and so much loved, it would indeed be a poor service to the dead worthies to attempt to classify them in any other way. Each made his own special walk, and each walked it well to the end. They all illustrated by their lives the bettering influences of a fixed faith in the reality of a Godhead. Three of the number died without a moment's warning; yet they all died trusting to the mercies of the Christ, in the hope of a blessed immortality, "where the great riddle of life," which they so yearned to solve, "shall be revealed to them in the quick consciousness of souls redeemed and purified."

Few physicians were better known in this community than Dr. Cummins. He was raised here. He acquired his scholastic and medical education here. He practically lived his entire life here. Throughout more than a generation he performed in his own straightforward, quiet way the work he had undertaken. While doing it he won the affectionate regard of his colleagues no less than the love and gratitude of that large segment of the public which trusted their lives and confidences to his hands. As a surgeon he was deservedly eminent. As a physician he was of quickest apprehension, great practical wisdom, and of superior judgment. As a friend he might have worn the motto of the Douglas, "Tender and true." He had not one sour drop in all his veins. Physicians and patients will alike feel the void which his death has created, and the entire community will be pained that his manly form and benignant face shall be seen no more among us.

DAVID W. YANDELL.

THE AMERICAN PRACTITIONER

JUNE, 1883.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

CASES OF HODGKIN'S DISEASE.*

BY J. C. MACKENZIE, M. D.

Professor of Theory and Practice of Medicine in the Miami Medical College and attending Physician to the Cincinnati Hospital.

The cases which I am about to report are examples of that fortunately rather rare affection, Hodgkin's disease. This is the name by which it is most frequently designated by English-speaking physicians, but it is known by a great many other terms. Trousseau has called it adenia; Billroth, and following him Birch-Hirschfeld, malignant lymphoma; Hodgkin himself, and afterward Wilks, lymphatic anemia; Cohnheim, from its close relation to leucocythemia, has given it the name of pseudo-leucocythemia: a title in very frequent use also is lymphadenoma, applied to it by Wunderlich.

The disease is characterized by two periods: First, a period of glandular enlargement, more or less extensively diffused over the lymphatic glandular system, during which the general health is pretty well maintained, unless the enlarged glands are so situated as to seriously compress important organs, when of course disturbance in the functions of these organs will result, and will

*Read before the Cincinnati Medical Society.

secondarily affect the nutrition in proportion to the importance of their functions. Second, a period when the general nutrition of the system is profoundly impaired, as evidenced by the loss of flesh and strength and progressive anemia, due in part to pressure exercised upon structures in the vicinity, but mainly to defective sanguification from the disease of such a number of organs whose function is in the normal condition connected with the formation of the blood.

Lizzie P., Kentuckian, aged twenty-eight, laundress, a widow, admitted to the Cincinnati Hospital October 24, 1882. Her father died from violence; her mother and other members of her immediate family alive and healthy. Had smallpox sixteen years ago; otherwise has enjoyed good health. Denies ever having had syphilis. The illness from which she is at present suffering began about nine months ago. At that time she noticed a small round tumor in the left axilla; this increased in size and was attended with pain in the left side of the neck and left breast. Soon after the glands on the left side of the neck became also involved and the breast swollen. The tumors continually grew larger, and two months ago she began to cough and occasionally to have attacks of dyspnea. About a month ago the glands on the right side of the neck also began to enlarge, and soon afterward those in the right axilla. The growth of the glands in the various groups implicated has steadily progressed, and the symptoms dependent thereon have become constantly more aggravated.

Condition on admission: She is a large, well-developed woman; rather obese. The left side of the neck, both anteriorly and posteriorly, is occupied by numerous enlarged lymphatic glands, each one about the size of a hen's egg. They are quite hard, and the skin covering them is of the normal color. There are also several enlarged glands on the right side of the neck, but they are not nearly as large as those on the left. The whole neck anteriorly and the upper part of the chest are the seat of lymphatic edema. She complains of dyspnea, and can not sleep at night in the recumbent position. Very little

change took place in condition of the patient. For the relief of the dyspnea codeia in half-grain doses every three hours was administered, which at first was efficacious but afterward failed.

On the 2d of November it was noted that the respiratory sounds heard on auscultation were obscured by loud tracheal râles. Chloral was tried, to relieve the dyspnea and procure sleep, but without much result, and patient frequently declared that she would suffocate.

From the time of her admission until November 3d the patient was in the surgical ward under the care of Dr. Dandridge. On that day she was transferred to my ward as being a medical case. At that time she presented a somewhat cyanotic appearance. The neck was as described above; there were several enlarged glands in each axillary space; the left arm and breast were very much swollen and brawny, in short in a condition of hard edema; there was edema of the lower extremities, though not very much. She was compelled to remain constantly in the sitting posture, as the recumbent position always induced the feeling of impending suffocation. She had no fever; coughed a good deal, and respiration was somewhat labored; the percussion note was normal over the chest; auscultation was extremely unsatisfactory on account of the tracheal sounds. As far as we could note there was nothing abnormal in the respiratory sounds; the tumors in the neck did not, so far as we could judge, so seriously compress the larynx and trachea as to account for the dyspnea present; appetite was poor; bowels regular; urine contained a trace of albumen, and microscopic examination revealed the presence of leucocytes; menstruation is regular. She was ordered eight drops of Donovan's solution three times daily, and one sixth of a grain of morphia and one one-hundred-and-twentieth grain of atropia every three hours at night.

A few days after her transfer to my ward I made an examination of her blood and found it to contain a very considerable excess of white corpuscles; but a subsequent examination two or three days after the first failed to confirm this excess, so that I suppose it depended upon some temporary condition. The

morphia and atropia enabled her to sleep better, but the dyspnea continued to such an extent that she could not lie down, but slept sitting in her chair and resting her head upon the bed. As she remained in about the same condition, and was dissatisfied, she asked and obtained her discharge on the 13th of November.

Upon her re-admission on the 15th (for she only remained out of the house two days), I again examined her chest as well as I could with the noisy respiration present. I found percussion normal, and auscultation normal except for the râles communicated from the trachea; the dyspnea was rather more urgent than when discharged, and she coughed a good deal; she was still slightly cyanosed and quite markedly anemic; the edema of the legs was more pronounced; the glandular enlargement in the neck and axillæ was about the same, as was also the lymphatic edema of the chest and left arm. I made an examination of the inguinal regions, which she had positively refused to permit during her previous sojourn in the house, but found the glands in that region perfectly normal. It was not possible to obtain any satisfactory knowledge as to the condition of the spleen, as the patient could not lie down, and she was very fat. As far as the examination by palpation, while she was sitting in her chair, would enable us to judge, there seemed to be no enlargement of the organ. She was put upon the same treatment as before, and in a day or two expressed herself as feeling rather more comfortable, which probably is referable as much to the quiet as to the medicine. She remained in very much the same condition, so far as the symptoms were concerned, until the morning of the 26th of November, when she suddenly died. At my visit on the 25th I found her sitting in her usual position in her chair, leaning forward upon the bed. Her breathing was neither more hurried nor more labored than it had been since her admission, and when I asked her how she felt, she replied that she felt about the same. I did not make any physical examination, as there seemed to be nothing new in her case to call for it. Her temperature since her re-admission had been taken several times, but always found normal.

Post-mortem examination made by Dr. Joseph Eichberg twelve hours after death. The body that of a very large woman; edema of the whole surface; rigor mortis absent; both sides of the neck very prominent, indurated and nodular; subcutaneous adipose tissue abundantly developed. On opening the chest the pleural cavities were found to contain an abundance of serum in which were a few flocculi of lymph. The amount in each pleural sac was about three quarts. The pericardium was also found to contain about eight ounces of sero-fibrinous fluid. The surface of the visceral and parietal layers was found to be the seat of numerous white growths situated in the subserous connective-tissue, which were in all probability the cause of the pericardial inflammation and effusion. The lungs were every where studded with small spherical white growths, varying in size from that of a pin-head to that of a pea. Both primary bronchi, as well as the trachea, were surrounded by a mass of enlarged and indurated lymphatic glands. This mass had become adherent to the apex of the right lung, and was continuous with smaller cheesy masses deposited in this part. Section of these enlarged glands revealed the fact that numerous follicles of the glands had undergone the process of softening and caseation. The lumen of the trachea was not seriously encroached upon, as it admitted the finger without difficulty; but the primary bronchi were every where firmly imbedded in the mass of agglomerated glands. Projecting over the opening of the glottis from above, on the right side, was another of these glands which obstructed about half the opening. The enlargement of the neck was due to a similar hypertrophy of the cervical glands. This extended upward to the angles of the jaws, and projected well into the cavity of the mouth. The heart was soft and flabby; the cavities were dilated, and contained a small quantity of soft, clotted blood. The peritoneal cavity contained half a gallon or serous fluid. All the abdominal organs were adherent to each other by fibrous bands, the result of former peritonitis. The liver was enlarged, weighing five pounds; the capsule showed in two or three places cicatricial thickening; the consistency was

increased; it contained, particularly in the left lobe, a number of pearly nodules. The spleen was enlarged, softened, weighed nineteen ounces, and contained a few caseous nodules each about the size of a hazelnut; small and large intestines appeared normal; kidneys were normal; the retro-peritoneal glands exhibited the same hypertrophy as those before referred to; only two of the mesenteric glands were enlarged, about half an inch in diameter, and they were calcified; the inguinal glands were slightly enlarged, but not nearly to the same extent as those situated elsewhere; the brain was edematous, otherwise normal.

A feature of great interest in connection with this case is the dyspnea and its relation to the effusion found post-mortem in the chest. When I first saw the patient the dyspnea was very pronounced. I made at that time a most careful examination of the chest and found nothing abnormal either in the lungs or heart. Upon the re-admission of the patient to the hospital I again examined her, with a like result. For the week preceeding her death I made no physical examination, as the symptoms remained unchanged. For this neglect I acknowledge myself deserving of blame, for important pathological conditions often creep on most insidiously in these chronic diseases attended by debility. The respiration as I have said, when I first saw the patient, was labored but not at all hurried, and this was the character of it throughout. On the last day of her life there was no greater frequency of breathing than when she first entered the house. The question then arises, at what time did the effusion in her chest occur? I do not think that there could have been any appreciable quantity at the time of her re-admission, as I certainly, with the careful examination that I then made, would have detected it. Possibly at that time a small quantity was present, and it increased very gradually up to the time of her death. Another point worthy of note is the character of the fluid and the condition of the pleural membrane. Apart from the few flocculi contained in the serum there was nothing to indicate the presence of inflammation. The pleural surfaces were quite smooth, and it is probable that pressure upon the veins by

the enlarged glands at the roots of the lungs was the cause of the transudation; in other words, that it was rather a dropsical than an inflammatory effusion. Trousseau, in his *Clinical Medicine*, refers to a similar case.

It is strange that, with such impediments to the aëration of the blood as existed in this case, the dyspnea should not have been greater even than it was. In the first place there was the firm compression of the primary bronchi, then the presence of about twelve pounds of fluid in the chest, and finally the existence of pericarditis with effusion into the pericardial sac. A consideration of these, together with the sudden death, would suggest the possibility that a considerable quantity of the fluid in the pleural cavities had been rapidly poured out just before the fatal issue, and perhaps had been the immediate cause.

Frank M., aged forty-four. I first saw this patient in July, 1873. He was then suffering with constitutional syphilis manifested by psoriasis palmaris and enlargement of the glands of the neck; his general health was considerably impaired, partly from the syphilis and partly because of his having been working very hard. I put him upon iodide of potassim and bichloride of mercury. He took this more or less constantly for several months, and as the result all his syphilitic symptoms disappeared and his general health greatly improved. He was troubled with chronic pharyngitis, and, having in his business to talk a great deal, he used to come in occasionally to consult me in reference to it, and to have it brushed with a solution of nitrate of silver, which gave him temporary relief; so that I saw him several times in the course of every year. At one time a small ulcer appeared on the front of the leg, which I regarded as due to syphilis, and treated him as before, with a satisfactory result, the ulcer healing. In the early summer of 1877 he came to the office and stated that a short time before he had noticed a tumor on the side of his neck near the angle of the jaw. I found upon examination that it was an enlarged lymphatic gland. This I suspected to be a fresh development of his syphilitic disease, and treated him accordingly, but without the slightest effect. The

gland first affected increased slowly though steadily in size, and other glands became implicated, first in the neck and then in the axilla. In addition to the corrosive sublimate and iodide of potassium, which he had taken internally, he had been applying for several weeks iodine ointment to the hypertrophied glands. Being convinced by the failure of this treatment and the involvement of so many of the lymphatic glands that the disease was not syphilitic, but that it was a case of Hodgkin's disease—in which opinion the late Dr. W. H. Mussey, whom I consulted in the case, agreed—I stopped the anti-syphilitic treatment and put him upon Fowler's solution of arsenic. This he continued faithfully for several weeks, without the least benefit. His general health in the meantime was becoming impaired; he looked anemic and was losing flesh and strength. I then prescribed Donovan's solution, and this also he took for some time, but the glandular hypertrophy continued. Becoming disheartened with the failure of the remedies to produce any improvement, he took a trip to the White Sulphur Springs, starting in the beginning of October. He remained there for two or three weeks, then went to Washington, returning home some time in November. Upon his return he came to see me. I found that, instead of being benefited, he was in a worse condition than before. The glands were larger and formed almost a complete collar around his neck; the axillary glands had also increased in size. He was weaker and thinner. I gave him tonics and ordered stimulants and as much nourishment as he could take. The last time I saw him was on the 13th of December, 1877. At that time he was unable to come to the office, and sent for me to come and visit him at the house of a connection in the city. I found him worse in every respect. After this time he passed through the hands of several physicians and died, as I understand, of exhaustion on the 4th of April, 1878. He never exhibited while under my care any disturbance of respiration, nor did the glands grow, as far as they could be seen, in such a manner as to give rise to any serious pressure upon the air-passages.

As to his family history, the only fact bearing upon his case is that his sister suffered with some affection of the neck, attended by swelling and suppuration, and eventually died of it. The patient was for some time a prisoner in Libby prison, and suffered the consequent privations. He lived well, drinking more or less every day, but was not at all intemperate.

Belle B., Cincinnati, aged twenty-three, saleswoman. I treated this patient during her childhood for several slight ailments, excepting which she had always enjoyed good health. In July, 1880, I attended her in an attack of febricula, from which she perfectly recovered in the course of a few days. Soon afterward she called my attention to a swelling under her right arm. Upon examination I found this to be an enlarged axillary gland. I directed her to rub over it some ointment of iodine, and to take syrup of the iodide of iron internally. I saw her two or three times afterward within the next few weeks, but, as the swelling did not subside under the treatment, she became dissatisfied and went to the Good Samaritan Hospital, where the gland was removed. She remained in good health, but she noticed that after the operation her right hand and arm began to swell, and this has continued ever since.

On December 28, 1882, she came to my office and directed my attention to a swelling a little behind and below the angle of the jaw on the left side. This was an enlarged gland and was quite hard; the skin over it was normal. Upon examination I found some of the posterior cervical glands on the right side also enlarged. The patient presented a healthy appearance. She was fairly nourished, not at all anemic. She had no cough, no fever. Her appetite was good and digestion normal. She had always menstruated regularly. Her breathing was natural; and, indeed, she expressed herself as quite well apart from the enlargements, which were objectionable rather on account of their appearance than from any inconvenience which they occasioned her. Her right arm and hand were very much larger than the left, and pitted slightly upon pressure, but were not at all painful. She was ordered to take ten drops of Donovan's

solution three times daily, and to rub the ointment of iodide over the enlarged gland on the left side of the neck. This treatment was continued steadily for a month, but without any influence apparently upon the disease. The size of the enlarged glands remained about the same. It was then suspended, and she was ordered one sixteenth of a grain of corrosive sublimate with ten grains of iodide of potassium three times daily. This course was pursued for two or three weeks, but with no better results than the other. In the beginning of March she directed my attention to an enlarged gland which she had recently discovered just above the left clavicle. It was about the size of a hazel-nut. The other enlarged glands remained in very much the same condition as when I first saw them. Her general health continued excellent. The corrosive sublimate and iodide of potassium were omitted and Donovan's solution resumed.

I saw the patient last on the 14th of March. She seemed to be in about the same condition as when seen before. No new glandular enlargement had occurred, and those present had not at all increased in size, but neither had they diminished in the slightest degree. Her general health was as before, very good. The family history in this case is bad. She is one of a family of five, one son and four daughters. The son is stout and vigorous looking, the daughters, except the subject of this report, are tall, spare, and delicate looking; she herself is the stoutest and most robust of them all. Her mother is alive and fairly healthy. Her father died many years ago of consumption, and his mother also died of the same disease. I saw the mother of this patient on the 14th of April, and she informed me that her daughter is about in the same condition as when I last saw her.

An interesting question arises in connection with this case as to the relation of the enlarged gland first observed in the axilla and the subsequent outbreak in the neck; and another point of importance is, as to whether the removal of gland had an influence in postponing the extension of the disease to other parts. I am inclined to the view that it was the forerunner in the diseased process, and that in all probability its excision was of

benefit in withdrawing the morbid influence, and thus for a time arresting the course of the malady. This proceeding has been recommended by high authorities when the disease is strictly localized, as it was in this case in the beginning. Of course when many groups of glands are involved, their removal would be out of the question, not only in consequence of the extensive operative procedures necessary, but also because of the almost certain implication of gland-structures in parts altogether inaccessible, as those about the bifurcation of the trachea and in the abdominal cavity.

Besides the three cases which I have reported above, I have seen two other cases of this singular disease. One occurred in the Commercial Hospital, in 1866, when I was resident physician in that institution. As I have been unable to recollect the name of the patient I have been unsuccessful in finding the history in the record-books. I can only state that the patient was in the house several weeks, that his cervical glands were enormously hypertrophied, and that he died of asphyxia, having suffered much from dyspnea for some time before his death. The patient was a man between twenty and thirty years old, and at the time of admission did not present much anemia.

The other case occurred in the practice of Dr. Murphy, through whose kindness I saw the patient. He was about forty years of age. The cervical and axillary glands were greatly enlarged, there were marked dyspnea and a congested appearance of the face and head, no doubt due to pressure of the glands upon the veins of the neck. We saw the man but once, but we heard that he died a few months afterward of asphyxia.

In certain important particulars the report of several of these cases as I have given them is quite defective: In the first place the state of the blood with reference to the number of corpuscles and the numerical relations of the red and white corpuscles to each other was not investigated; in the second place the condition of the spleen as regards its size was not determined. Both of these points are of capital importance in making a diagnosis between Hodgkin's disease and leucocythemia, indeed

a microscopic examination of the blood is the only means by which a positive conclusion can be arrived at between these two very closely allied affections. In both there may be enlargement of the spleen; in both there may be enlargement of the lymphatic glands; in both we may have anemia with progressive emaciation and debility. The only essential distinction between them is the increase of leucocytes in leucocythemia and the absence of any such increase in Hodgkin's disease. Nevertheless, although it can not be said positively that some of these cases were not leucocythemia, yet I think, when the conditions presented and the history of the cases are considered, there is a great probability of their being cases of Hodgkin's disease. In all of them the glandular disease preceded for a considerable time any indications of systemic disturbance or anemia, while in leucocythemia, in those cases in which enlargement of the lymphatic glands is present to any extent, the anemia would be an early condition.

The pathology of this affection is involved in the utmost obscurity. All that we know is that there is a predisposition to enlargement of the lymphatic glands and adenoid tissue throughout the body, but what produces this predisposition and what determines immediately the outbreak of the disease are in most cases unknown. Trousseau maintains that occasionally irritation is the immediate cause of the enlargement, but it can be proved in so few cases that its importance must be regarded as very questionable. Syphilis has also been adduced as lying at the foundation of the predisposition, but with regard to this, the number of cases in which syphilis has existed are very few, and the almost invariable futility of anti-syphilitic treatment would tend to exclude it as being influential in the production of the disease. I may state, as showing the uncertainty of our knowledge as to its pathology, that while most writers maintain an essential difference between Hodgkin's disease and leucocythemia some of the most recent do not acknowledge any such distinction, and hold that the two are simply modifications of the same affection. Jaccoud and Labadie-Lagrave, in their article in the

Nouveau Dictionnaire de Médecine et de Chirurgie, treat of them both under the same heading, and Cornil and Rauvier, in their work on Pathological Histology, consider them as the same disease modified in consequence of some still undiscovered conditions. Even those who describe them as separate maladies acknowledge that in some cases of Hodgkin's disease there is an excess of white blood corpuscles. Now, in what respect a case of Hodgkin's disease with excess of white corpuscles can differ from a case of so-called lymphatic *lukaemia* I can not understand. So that I think we must admit a very close relationship between the two, and that while we may at once pronounce a case with large excess of leucocytes and enlargement of the spleen one of leucocythemia, and, on the other hand, a case with great hypertrophy of the lymphatic glands throughout the body, without excess of leucocytes and no manifest enlargement of the spleen, one of Hodgkin's diseases, yet there are some cases possessing the characteristics of both diseases, and, as it were, forming a bond between the two, in which it would be impossible to say positively whether they belonged to one class or the other.

The treatment in these cases which I have reported seems to have been quite ineffectual. Such has been the result generally, for, though under certain plans of medication, cases have recovered, yet these same means employed by other physicians have been found utterly useless. In estimating the value of any line of treatment in this affection it should be recollected that in some cases, even when under no treatment, there will be protracted periods when the pathological process seems to be quiescent, and there may be improvement, as indicated by diminution in the size of the glands and a better condition of nutrition of the body generally, but after a time the disease resumes its course and the patients succumb; so that before any favorable conclusion can be arrived at as to the beneficial influence of any course of management the case should have been under observation for some length of time. We may therefore conclude that while some cases of cure have been reported under

the action of phosphorus, arsenic, iodine, various mineral baths, etc., these are isolated cases, and in the vast majority of patients afflicted with this disease the progress is steadily toward a fatal termination, uninfluenced by the various measures adopted for their relief.

CINCINNATI, O.

HEMORRHAGE FROM THE RECTUM.*

BY J. M. MATHEWS, M. D.

I have selected as a subject for a short paper, hemorrhage from the rectum—its causes and treatment. Every physician is liable to meet with a case of the kind at any time, which may prove dangerous in its results. The blood-supply of the rectum is abundant. Permit me to recall the principal distributions to the part, viz: (1) The sacra-media, descending upon the last lumbar vertebra, along middle line of the sacrum to the upper part of the coccyx, anastomosing with the lateral sacral arteries, branches from it to the posterior surface of the rectum. (2) The superior hemorrhoidal artery, the continuation of the inferior mesenteric, descends between the layers of mesorectum opposite the middle of the sacrum, divides into two branches, one on either side. Small branches are distributed to the lower end of the gut, anastomosing with each other, the middle and inferior hemorrhoidal main branch being within a finger's length, or four inches, of the anus. There is danger here in the division of stricture. (3) The middle hemorrhoidal, from the anterior division of the internal iliac, comes off with the inferior vesical anastomosing with other arteries. (4) The inferior or external hemorrhoidal branch or branches (two or three) of internal pudic, one of the terminal branches of the anterior trunk of the internal iliac, given off as the artery passes behind the tuberosity of the ischium, distributed to the muscles and integuments of the anal region. This is often cut in operations upon fistulæ.

*This is an abstract only of the paper read by Prof. Mathews, before the Kentucky State Medical Society, at its meeting in April.

The principal venous supply is from the hemorrhoidal plexus surrounding the lower end of the rectum, formed by the superior hemorrhoidal veins, branches of the inferior mesenteric and middle and inferior hemorrhoidal, which empty into the internal iliac. It will be observed that there is free communication here between the portal and systemic systems, and it is this point that causes the confusion of some writers in speaking of the valves, or no valves, in the veins of the rectum. Of course, with this immense blood-supply, the rectum is very liable to hemorrhage. The causes briefly named are as follows:

1. Hemorrhage following the ligation of internal piles.
2. From ulceration of the bowel.
3. From capillary hemorrhoids.
4. From hemorrhagic diathesis.
5. From polypi.

These, in my opinion, are the only causes calling for surgical interference. Serious hemorrhage may result from ligating internal piles. Sir Astley Cooper, eminent surgeon that he was, once lost a patient from this cause. There are three causes for hemorrhage following the operation:

1. The division of a vessel or vessels.
2. Puncture of a vessel in transfixing tumor.
3. From sloughing of the pile.

The hemorrhage that follows after ligating piles is either accidental, recurrent, or secondary. Primary hemorrhage is rare, usually no ligature is necessary for its arrest. Oozing that may follow after shock may be controlled by pressure and the use of hot water. The reaction, after cold is applied, is sometimes dangerous. I am sure that hot water acts as a "stimulant to both the walls of the vessels and to the nerve fibrils in the wound." It does not produce shock. Styptic solutions should not be used after ligating piles, they cut the ligatures.

In the method of transfixing piles advocated by the late Dr. Van Buren, serious hemorrhage may occur from piercing a blood-vessel. The only way to control it would be to draw down and place a ligature above the point of bleeding.

Hemorrhage from sloughing of the tumors. This is seldom met with if the operation is by the ligature. It has been my misfortune to witness several severe cases of the kind following the operation of injecting piles with carbolic acid. In such event the ligature to the bleeding vessel can not be thought of. The only recourse is to plug the rectum after the manner advised by the authors.

Hemorrhage from ulceration of the bowel. I use the term *ulceration* here, believing that it is an ill term, yet the books do not give us a better one. True ulceration is not and can not be accompanied by much bleeding, for the reason that there is sufficient inflammatory action incident to the disease to clog the vessels with lymph, hence, prevents hemorrhage. The condition of which I speak, in contradistinction to ulceration, is an abrasion or peeling off of the epithelium of the gut. Very little inflammation, if any, attends it, and much hemorrhage may result. Such cases are often, I am sure, mistaken for other diseases, notably dysentery. Treatment: The object of treatment here is to produce sufficient inflammatory action to stop the bleeding. The very best application is, in my opinion, pure carbolic acid. It should be applied freely to the abraded surface.

Hemorrhage from capillary piles. It will be remembered that these are the small, spongy, raspberry-looking pile. Its disposition is to bleed upon the slightest provocation. The blood lost is usually arterial, and the quantity may be enormous. Treatment: It is best to catch up the entire mass and place a ligature around the base. A serrated-edged forceps should be used in lieu of the forked one commonly in use, to prevent tearing. The actual cautery or nitric acid may accomplish the same result.

Hemorrhage from a hemorrhagic diathesis. This, as a cause for bleeding from the rectum, is scarcely mentioned by the books. That it occurs has been evidenced in my practice. The symptoms are sometimes alarming. Treatment: The habits of the individual should be changed from sedentary to active life. Exercise, fresh air, proper diet, etc., should be enjoined. The

sheet-anchors in treatment is ergot, or ergotin, given for its full effect. It may be combined with some form of iron. The best local applications are hot water (injected), sub-sulph. iron, and pure carbolic acid. Each repeated as often as necessary.

Hemorrhage from polypi. These tumors lie usually above the sphincter muscles, but all at once may begin to bleed, either from detachment or other causes. They should be brought into view by forcibly dilating the muscles, and a ligature applied to the pedicle.

I have met with one case of vicarious menstruation through the rectum. Such cases are rare, and need no treatment.

LOUISVILLE.

ON SOME CASES OF HEAD INJURIES TREATED BY THE TREPHINE.*

BY W. O. ROBERTS, M.D.

Professor of Surgical Pathology and Operative Surgery, University of Louisville.

A man, aged forty-five years, of intemperate habits, while in a drunken brawl was struck on the head with a beer-mug, the blow felling him to the floor and producing temporary insensibility. He soon recovered consciousness, and walked to a physician's office, five blocks distant, where the scalp wound, situated on the left side of the head, about one inch above the frontal eminence, was dressed. He then walked to his home two squares away. During the ten days following he had but little trouble, complaining only of soreness of the scalp and general weakness. He kept his bed part of the time, only being about the house a portion of each day. On the evening of the eleventh day he was seized with intense pain in the left side of the head, accompanied by fever, loss of appetite, nausea, and occasional vomiting. Four days later these symptoms were followed by a well-marked chill. Soon after the chill his wife

* Read before the Kentucky State Medical Society, April, 1883.

discovered that he had lost the power of speech and was paralyzed on the right side. Two days later I saw the case, and found his condition as follows: Pulse 100, and feeble; temperature 101°; surface of body clammy; pupils dilated; right side completely paralyzed. He made no response to questions, though seeming to understand what was said to him. I diagnosed the trouble to be intra-cranial abscess, situated beneath the seat of the external wound, and advised immediate trephining as affording the only hope of relief. I did the operation, assisted by Dr. Cottell, in the presence of a number of medical students. On re-opening the scalp wound, a grooved fracture, half an inch long, but involving only the outer table of the skull, was revealed. The trephine was applied directly over the seat of the fracture. No pus escaping when the button was removed, the membranes were punctured; but neither blood nor matter followed. The following day the patient died in coma. A post-mortem, made by Dr. H. C. Miller and myself, revealed the existence of an abscess, situated not, as I had supposed from the symptoms, especially that of aphasia, in the anterior part of the cerebrum, but upon the surface of its posterior portion. The abscess was an inch and a half in diameter, and contained about one ounce of pus. The rest of the encephalon appeared healthy.

J. L., twenty-three years of age, a fireman on a railroad locomotive, while standing on his engine was struck by the water-spout of a tank, and knocked, through an opening in the bridge, to the ground thirty feet below. Five minutes later he was found lying on his side, conscious, with a small wound on his forehead and a big gash on his left cheek. Near his head was a sharp-pointed rock stained with blood, which was supposed to have made the wound. With a little assistance he was able to rise and walk the distance of twenty-five car-lengths, when he was taken on a train to a neighboring station and his wounds dressed. He was then brought back to Jeffersonville, arriving there at noon the same day. He walked from the depot to his home, three squares away. The next day Dr. Fouts was called

to see him, and found him complaining of great soreness about the head and general weakness. On the third day he had a slight chill, followed by fever, headache, loss of appetite, and nausea. Two days later he had twelve convulsions in rapid succession, and began to lose the power of speech. The next day he had seven convulsions, and speech failed him entirely. Late on the evening of the sixth day I saw him with Dr. Fouts, when his condition was as follows: Pulse 80, and good; temperature normal; pupils somewhat dilated; expression listless; no paralysis, but complete aphasia; when spoken to, would mumble; scalp wound still open and discharging some pus. A depressed fracture of the skull could be distinctly made out with the probe. It was decided to expose the bone at the seat of fracture and remove the depressed fragment. Assisted by Drs. Fouts and Cottell, I operated as follows: Enlarging the original wound in the soft parts, so as to expose well the opening in the skull, I discovered the loose fragment which was depressed. I had no difficulty in getting a curved director under this and lifting it out. Dark extravasated blood to the amount of an ounce and a half immediately began to flow through the opening. On coming from under the influence of chloroform, the patient spoke distinctly and intelligently. He made a rapid recovery without one untoward symptom.

W. O. K., aged sixteen years, entered Sts. Mary and Elizabeth Hospital in June, —, suffering from an injury of the head, giving the following history: Four weeks before admission he was struck on the head by a block of wood which had fallen a distance of thirty feet. He was severely stunned by the blow, but did not think he had entirely lost consciousness. Soon after the accident a physician saw him. There was no sign of paralysis that night. The next morning, however, he found that he had not perfect use of his left arm and leg. For some time there was great tenderness of the scalp and a considerable discharge of bloody matter from the wound, but no increase in the paralysis. If any change was observed, it was for the better. Four days before admission, or twenty-five days after the injury, he

began having intense pain in the head at the seat of the wound, accompanied by chills, fever, and sweating, and the paralysis steadily increased. On admission his temperature was 102° , pulse 112 and feeble, surface of body clammy. The wound occupied the center of the left parietal bone, and caused intense pain in the entire head. It was discharging slightly. A distinct depression in the bone could be recognized by the use of the probe. Intra-cranial abscess was diagnosed, and an operation advised to give exit to the pus. The following day, assisted by Dr. Cummins, and in presence of the University class, I removed the depressed fragment, an inch long and three fourths of an inch wide, which was so wedged in as to require the use of the trephine to get the elevator under it. On its removal pus immediately began to flow through an opening which was found in the dura mater, and fully one ounce escaped. The scalp wound was then brought together, except at its lower angle, which was left open for drainage. When he had recovered from the anesthetic the boy expressed himself as entirely relieved of the headache. He was cautioned against excitement of every kind or attempting to raise up in bed. On the seventh day after the operation, during the absence of his nurse, he got out of bed and walked to the commode, a distance of thirty feet. He had scarcely returned to bed, when hernia of the brain occurred. This was immediately followed by coma, in which he died eight hours later.

W. L., aged six years, was kicked to the ground by a frightened horse. His cries brought his mother, who found him upon his feet. With her assistance he walked to his home two hundred yards away. One hour after the accident I found the boy sitting in a chair, perfectly conscious, with an ugly wound over the left frontal sinus, from which blood and some brain matter was oozing. Fully a teaspoonful of brain substance had escaped through the opening. Assisted by Dr. McClanahan, I gave him chloroform, and examined the wound. The opening in the skull was almost round, and full two inches in circumference. Several loose fragments of bone were removed, and the wound in

the soft parts, throughout two thirds of its extent, brought together, the most dependent portion being left open for drainage. Antiseptic dressings were then applied, and bromide of potash ordered to secure quietude. The bromide I was never able to administer by the mouth; he very stubbornly refused to take any medicine; and being ungovernable, any attempt to force him was followed by so much excitement as to compel me to abandon it. Whenever he complained of pain in the head, or was very restless, the potash was administered by enema, with the happiest result. The local treatment consisted in the application of cloths wrung out of ice-water containing carbolic acid. He made a good recovery.

B., aged thirty, of Kentucky, was shot with a gun charged with buckshot by a man who was in a barn some twelve feet above him. One of the balls entered, or was supposed to have entered, the cranial cavity through a comminuted fracture of the anterior and upper fourth of the left parietal bone. The patient fell unconscious. No physician saw him for eight days. Meantime a cerebritis set in, and came near proving fatal. The wound slowly healed, and in four months the man deemed himself well enough to resume his work as farm-hand. During the two following years the skull injury re-opened on several occasions, and small pieces of bone were either picked out by forceps or fingers, or were floated out by the discharge. Throughout this period the patient did not suffer specially with headache, and certainly had no head symptoms so called. With the beginning of the next year, however, he became peevish, and was indisposed to work. Soon after he had a slight epileptic attack. He had much headache. The epileptic seizures grew more frequent until they came on every week, and would occasionally occur many times in one day. The bromide of potash, avoidance of all excitement, mental and physical, postponed the attacks to once a month—never longer than that. His behavior became a little eccentric, and from being naturally taciturn he was transformed into a regular chatterbox. After this condition of things continued nearly three years, he was sent to Prof. D. W. Yandell,

who, after careful examination, decided to explore the seat of the original wound. The time to do this before the University class was fixed, but a very severe and exhausting surgical operation which Dr. Y. had performed a moment before led him to ask me to operate on Mr. B. I made a free crescentic incision through the superficial tissues down to the slight depression which denoted the seat of the original fracture. A fibrous membrane, semi-transparent, as large as a finger-nail, filled the space from which the fragments of bone had previously escaped. This I carefully divided. Immediately underneath it, and lying in the dura mater, were several small fragments of bone and two small bits of lead. The patient recovered without a mishap. He had had no return of convulsions when heard from several months after. His head had ceased to ache, and his tongue had grown quiet.

Dr. D. W. Yandell exhibited the vault of the cranium of a woman who was trephined for depressed fracture about the center of the left parietal bone, in 1854, by Prof. Gross, when he occupied the chair of Surgery in the University of Louisville, Dr. Yandell remarked that in 1867 the patient begun to have epileptic convulsions, which continued to occur till her death in 1872. The dense fibrous membrane usual in such cases occupied the opening made by the trephine. On the inner table of the bone was an exostosis not larger than a pea. The dura mater immediately under this small projection was found at the post-mortem to be thickened and otherwise presenting the evidences of previous inflammation. It was thought reasonable to infer that the irritation caused by the seemingly insignificant little exostosis had given rise to the epilepsy. If this inference was correct, and epileptic convulsions really arose from so small a growth and so circumscribed an area of inflammatory disease, it is in striking contrast to some of the cases just reported by Prof. Roberts, and to many cases seen, no doubt, by almost every member of the Society.

In 1867 Dr. Yandell saw, with the late Dr. John O'Reilly, a

man who got a depressed fracture from a shot five years before. Three years after the injury he became epileptic. Dr. O'R. used the trephine. On the under surface of the button removed was an exostosis not much larger than that on the woman's skull, but it was so angular that it was almost sharp. The depression alone did not appear sufficient to produce the epilepsy; but when bony deposits occurred on the inner surface of the cranium the brain was no longer able to resist the combined causes and displayed its irritation in epileptiform convulsions. The complete recovery of this patient would seem to confirm the view expressed as to the cause of the epilepsy in the woman's case. And if she had been trephined for epilepsy as she had been on a previous occasion for fracture, it is hardly too much to say that she too might have been saved. Dr. Yandell also reported the case of a youth who, by the kick of a horse, got a fracture near the center of the frontal bone with what seemed to be only slight depression. Recovery speedily ensued. Two years later he was seized with epilepsy. The attacks, at first rare, became more and more frequent. His temper grew irritable and finally vicious. This state of things continued for four years. Dr. Y. now applied trephine. There was nothing noticeable about the button removed. The dura mater appeared much thickened over the spot. The patient had his last epileptic fit during the operation. He made a quick recovery. His viciousness disappeared, and he is now a useful citizen.

Dr. McCormack, of Bowling Green, said the thanks of the Society were due Dr. Roberts for the series of cases presented in his paper, because of the clinical points so well brought out in each, and especially on account of the important evidence they bore of the value of trepanning in treating this class of injuries. A case had come under his own observation which was interesting in this connection, and still more so because of the remarkable mental phenomena which followed the operation, presenting, as it did, all the features of a well-marked case of double identity. The history of the case was as follows:

Charles Williams, an American farmer, aged twenty-three

years, was brought to his office from the country, that he might examine him as to his mental condition, and testify before a jury which had been requested by his friends, who desired to send him to a lunatic asylum. When fifteen years of age, and while engaged as a "striker" in his father's blacksmith shop, he was struck on the head with a pointed hammer and felled to the floor; was unconscious for several hours, gradually recovered, and after a few weeks suffered no noticeable inconvenience from the injury. This occurred in Allen County. Two or three years later he came to the community in which he now resides, was married when nineteen years of age, purchased a farm shortly afterward, and all this time he presented no mental peculiarity which was sufficiently marked to attract attention. Six months before he was brought to the doctor he began to complain of pain and tenderness in the seat of the old wound, and about the same time began to exhibit indications of mental derangement. At first he was morose and sullen, but later became maniacal and difficult to restrain. His appetite was poor, his sleep was disturbed, and his general health had failed rapidly. Two men and the wife brought him to the office in an open wagon. His general condition was bad. He was much emaciated, cachectic in appearance, with furred tongue, pulse 110, temperature 98°. He was nervous, restless, and impatient of restraint, and presented all the symptoms of acute mania. There was a well-marked depression about the size of a silver quarter at the juncture of the sagittal with the coronal suture. The scalp in the vicinity of this depression was so exquisitely sensitive that it was examined with difficulty, and the examination gave great pain. His wife said that this pain and tenderness had been constant since the beginning of his mental trouble. The man was evidently in no condition to be sent to an asylum, and was sent to his home in the country.

On the following day, in the presence of Drs. Porter, Murray, Neal, and Meredith, the operation was performed. At first a section of bone was removed with a large trephine, and, as this did not include the whole of the internal depres-

sion, a second section was taken out which slightly lapped into this. Still a corner remained which seemed to press on the brain, and this was removed with bone-forceps, and smoothed with a rasp. The membranes were not injured, and the dura mater appeared healthy; the wound was closed except at the posterior part, which was left open for drainage. The recovery was rapid and the relief of the mental condition was immediate and permanent. He gained flesh rapidly, and in a short time resumed his work on the farm.

Immediately following the operation were developed those curious mental features which gave special interest to the case. The man seemed to be impressed with the idea that he had just recovered from the effects of the blow on the head, and had no recollection of any event of his life from the time of the injury until he was relieved by the operation. He said he did not know his wife, or that he had a wife, his neighbors were strangers to him, and his business transactions in connection with the purchase of his farm could only be understood after an examination of the deeds, and full explanation. He seemed to be entirely ignorant of his former surroundings, and had to learn the roads of his neighborhood like any other stranger. Most of his friends were skeptical in regard to these things, and many tests were made of their truth. His answers were frank and candid, but he always said he was totally unable to recall any event occurring in this period of his life.

Dr. McCormack admitted the possibility of deception on the part of the man, as there was in most similar cases; but when it was recollected that, while a man of fair intelligence, his education was very limited, and that he had probably never heard of a case of this kind, it was more difficult to believe that he could manufacture and be consistent in such a story as this than to believe the story itself. He said it was to be regretted that the man was not highly intellectual, and accustomed to describing his methods of thought, as the interest of the case would be greatly enhanced by minute mental details. The man's friends and neighbors all concurred in saying that there had

been a marked change in the man's general demeanor. While always industrious and sober, he had been of rather a noisy, turbulent disposition, which was in marked contrast with his quiet manners since the operation.

HEAD INJURIES, WITH REMARKS.*

BY S. E. MUNFORD, M. D.

I desire to present to the Society four cases of injury of the head, occurring in my practice during the past four years, which are, in some measure, illustrative of the variety of these hurts, with some remarks concerning them; and also to notice briefly some points with reference to operative procedures in fractures of the skull. If I may effect nothing else, I shall at least hope to quicken a livelier interest in this field of work.

CASE I.—A boy, aged fourteen, in a runaway received a fracture of the skull. He was picked up immediately after the accident, and, in a wholly unconscious condition, carried to a house. All the symptoms of compression were present. An effort was made to warm the extremities and restore consciousness, but a lapse of six hours found him in a profound coma. Drs. Blair and Kidd arrived and engaged in the management of the case. It was thought proper to raise a flap of the scalp, so as to learn the extent of the cranial injury. This done, a fracture of the right parietal bone, just above the temporal ridge, was disclosed. It was stellate in form, with deep central depression. As there was no loose fragment, the trephine was applied, after which the depressed bone was easily raised. It was noticed that the dura mater did not fully rise to the trephine aperture, and that it was devoid of pulsation—phenomena that may always be taken as suggestive of large clot between the skull and dura, or of contusion of the brain. In this case no clot was noticed;

* Read before the Indiana State Medical Society, May, 1883.

so the latter condition doubtless existed. Before the operation the breathing had been so slow and labored as to indicate speedy death. Immediately following it the respiration was noticeably improved, as was also the action of the heart. Other than these features no improvement was noticed, total insensibility existing until death, which occurred at the end of the fourth day. No harm was done to this fatally injured boy by the operative measure; on the contrary, the stertor was lessened, and his life no doubt thereby prolonged. The depressed bone, although driven much below the common level, was not a factor to the suspension of consciousness; and if we may rely upon the authorities, depressed bone, in itself, seldom occasions primary symptoms.

CASE II.—A railroad engineer received a compound fracture of the left parietal bone in its anterior inferior angle, from a collision of engines. When seen, three fourths of an hour after the accident, his aspect was most deathlike. The symptoms were those of shock and compression of brain commingled, sensibility not being wholly abolished. After using some measures to restore the circulation, the wounds were examined and found, beside the compound injury to the skull, to consist of a cut to the bone extending vertically across the forehead, and a contusion of the scalp on right side of the head. The fracture was linear, and extended from a little above the anterior lower angle backward three inches. The lower fragment was depressed about one third of an inch. Partial anesthesia was produced by ether, the trephine used, and the sunken bone lifted without difficulty. A small clot was removed from the trephine opening, after which there was a free flow of blood from within the skull. A piece of styptic cotton pressed in the wound had the effect to stop the bleeding. As soon as the influence of the anesthetic had passed he recognized friends about him. He speedily rallied from the shock. But little febrile action occurred at any time in the case. Two features, however, occasioned some uneasiness: a marked aphasic condition which was noticed from the beginning, but largely disappeared after the second week,

and delirium occurring at night without fever after the wound had almost healed. The site of the wound and the supervention of aphasia bear further testimony to the localization of at least one of the faculties of the brain. Why there should have been delirium, where neither pain nor fever existed to suggest meningitis, was not clear.

The following cases are examples of secondary results of injury of the head:

CASE III.—A man engaged in a saw-mill fell from a height, the left side of the head striking a square oak block. The upper portion of the auricle was entirely severed. The scalp was extensively cut, and peeled up from the bone, and the skull fractured. The break extended from the coronal suture through, or nearly through, the transverse diameter of the parietal bone. Near the middle of this line of fracture there was a vertical seam joining the transverse line from below. The lower fragments were pushed in to about the thickness of the bone. When called to see him, eight days after the reception of the injury, it was learned that immediately following the accident there existed the condition characteristic of concussion, which gradually passed, and was in a few days succeeded by fever, pain in the head, and delirium. We found him violently maniacal, requiring day and night the presence of strong men to restrain him. The scalp was red and puffy, and was suppurating along its cut edges. The skull was perforated and the elevator passed under the depressed bone, but failed to lift it until an overlapping angle of bone was cut with Hey's saw. The dura showed a slight change by inflammatory action. No pus was discharged. It was not possible to close the inflamed and swollen scalp, and as the case progressed the scalp retracted, leaving a vast expanse of uncovered bone. The trephine hole was near the middle of this area, thus giving an opportunity to watch the process of repair of the opening in the bone. The dura mater for the first week pulsed in the bottom of the trephine cut in the usual way. After this time it was noticed that this membrane gradually receded, leaving the inner cut edge of the bone visible. A few days

more the advance of the granulating columns showed themselves at the margin of bone, and steadily crept across the exposed membrane and the walls of the cut bone, until at last the void was filled by this marvelous patch-work tissue. The repair consists in a thickening of the dura mater over a surface considerably larger than the aperture in the bone. This supplemental tissue, as is known, ossifies in exceptional cases. The rule is, the formation of fibro-cartilage. Within a day or so after the operation on this man, the temperature declined, the delirium began disappearing, and the case made steady progress to entire recovery. The exposed bone was not wholly covered until four months had elapsed. It is believed that the pericranium was saved by abstaining from frequent washings, and by cleansing the wound by gently flooding with tepid water, allowing no wiping or mopping with sponges. The tedious granulating process over the bared skull has doubtless been noticed by all who have seen such injuries. It behooves the surgeon, therefore, to save the scalp in all injuries of this structure, and to endeavor to have as early a union of its cut edges as is possible and admissible. Wiseman, after abusing a barber for cutting off a piece of the scalp of a "horse courser" and hanging it up in his office to show how great a surgeon he was, adds, "However ragged the integument may be, however ingrained with mud or sand, or any thing of the kind, you will replace it and leave it to nature to determine how much and which part is to be separated." The lesson of this case is, that the lifting of an offending edge of bone may cut short an inflammatory process which would otherwise go on to suppuration and death.

CASE IV.—A young farmer, in firing a gun, received from an explosion of the breech a wound above the left eye. He fell to the ground, but with a little assistance walked to his home. He remained indoors for one week on low diet. In two weeks after the injury he was looking after his business, but began complaining about this time of pain on the injured side of the head behind the ear. A message finally came to the effect that he had convulsions. These occurred during the night. The next

day I saw him, in connection with Dr. West, who had the management of the case from the beginning. We found him in bed, but, so far as we could see, he was wholly rational and free from fever. The original wound of the head was healed, and the integument was neither angry nor puffy. The pain in the head which had harassed him for days had, he said, disappeared. We could not doubt, however, but that the injury of the head stood in the relation of cause to the spasms of the night previous. After directing cold to the head and an active cathartic, we left the house. We were scarcely started, when we were recalled, and told that he had another spasm. We found him convulsed with a true epileptic fit. Any farther delay of operative measures we believed inadvisable. The administration of chloroform was begun while he was still convulsed. After raising a semi-circular flap of the integument, in the center of which was the original wound, a fracture was found extending from the superciliary ridge, upward and outward, one inch and a half. The upper margin was depressed nearly the thickness of the bone. After removing a wheel of bone by the trephine, it was found that the junction of the two plates had been notched, thus opening the frontal sinus. The depressed bone was with much difficulty lifted to the common level. No loose fragment of the external plate was noticed. The dura mater was but slightly changed from the normal appearance. No pus was discharged. The flap was laid in place, and healed, leaving a neat semicircular thread line of scar-tissue, which is, in truth, "a line of beauty." He recovered rapidly from the operation, and had neither convulsions nor pain afterward. There is a general impression that epilepsy only follows injuries in which the classical "spiculum" has been driven in. The offense in this case was the rough edge of bone, and the depression, it will be noticed, was not great. If left to itself, the result would likely have been suppurative meningitis, or, that escaped, permanent traumatic epilepsy.

Doubtless many deaths capable of being prevented occur from injuries of the head. The factors to this result may be

enumerated as follows: (1) Inattention to the lighter injuries; (2) abandonment of graver ones; (3) too great conservatism in the management of an intermediary class. "No injury of the head is too slight to be despised or too great to be despaired of," wrote Liston; and it is a truth whose teaching, if faithfully adhered to, would be worth many a human life. How often people come to us, having received a blow which contused or cut the scalp, whose wounds receive a little washing and perhaps a little stitching, but who are allowed to depart with no word of caution! The ordinary occupation is perhaps at once resumed. Rigors, fever, pain in the head, delirium, coma, death, are frequently the sequential phenomena of such neglected cases. Guthrie said that while it was doubtless true that the internal plate of the skull was often fractured by blows that inflicted no injury to the external table, yet in a practical point of view it was not well to bear it in mind, otherwise few receiving these injuries would escape the trephine. It were well for our patients did we proceed in the management of these hurts as if every blow which sent a patient to us had done violence of a serious sort. Not that they should be trephined, unless necessary, but watched. When we see cases of so desperate a character as to dispel hope, we should remember that a tamping bar three feet long has been driven through the human skull, and that Minie-balls have traversed the cranium and its contents from forehead to occiput without fatal results.

In that class of injuries between the lighter and graver, injuries involving lesion of bone and perhaps of the integument, which, by their nature, challenge immediate attention, and yet present a hopeful aspect, is the practice of the profession at large that which most tends to save life? If surgery is defective in this direction, it may, in apology, be said that no hurts of the body present so many complex and obscure elements as do head injuries. Hence it is we often find cases whose entanglements baffle the keenest sagacity, and for whose management no principles or established rules present themselves. Hennen comprehended this when he said, "The young surgeon who for the

first time witnesses a series of injuries of this description will at every step have something to unlearn; he will find symptoms so complicated, contradictory, and insufficient to give any rational clew to their causes; diagnostics, of the truth of which he had read himself into a conviction, so totally unsupported by the results of practice; and the sympathies he was led to look for as infallible accompaniments of certain states of disease so often wanting altogether, that he will probably be inclined to relinquish the hope of ever arriving at a correct theory, or at least he will enter the clinical ward with the pride of science considerably subdued."

I am aware that in this day, when there exists the subdued surgical sentiment, any thing like complaint against what is denominated conservatism is likely to be unpopular. But conservatism in surgery is a relative element. The practice which will save the limb or structure will, in head injuries, lift the depressed bone or evacuate the products of intra-cranial inflammation. True conservatism does not let alone. It tends to save, whether it be life or limb.

The axioms of surgery regarding operative measures in fractures of the skull are the evolutions of clinical experience, and are, in the main, doubtless correct in their teachings. But shall we invariably follow the teachings of these precepts? One declares that a simple depressed fracture of the skull, without symptoms of compression, shall be let alone so far as the bone is concerned. Another teaches that the same fracture, provided a wound of the scalp co-exist, may have operative treatment. I am inclined to the belief that an incision of the scalp is too slight a complication of the injury to be allowed to hinder the lifting of the bone, especially as we may call to our aid antiseptic measures. If there be a rough edge of bone or spicula impinging the dura, which is less tolerant than the brain itself of intruding objects, subsequent intra-cranial trouble is highly probable. The bone lifted, this danger is largely averted. The limited experience furnished by my own practice, with observations of the practice of others, leads me to believe that primary surgical

measures in fractures of the skull add little to the shock of the existing injury. I do not say that every case of fracture with depressed bone shall have operative treatment. No one may say, elsewhere than at the bedside, which cases shall and which shall not have such treatment. Professional sagacity face to face with its work is superior to any law or rule in surgery.

Suppurative meningitis with resulting compression of the brain from pus is a frequent issue in fissures and other injuries of the skull. No treatment for this trouble will avail save such as surgery may bestow.

Mr. Hewett teaches that in this class of cases we are only to operate where, in addition to fever and rigors, and to the local signs about the bone, there are also well-marked brain symptoms, coma, and, better still, hemiplegia. If we wait until these phenomena are present, and operate, we may at least feel that the operation did not destroy our patient. Arachnitis and brain disorganization are apt to put him "past all surgery." Mr. Pott, the great apostle of the trephine, found justification in the puffy tumor, the secession of the pericranium, restlessness, fever, slight rigors, pain in the head, and quick pulse, for perforation of the bone, and his record is five out of eight such injuries saved.

Timely operative treatment in injuries of the head is doubtless often withheld because of an existing prejudice against such measures. The danger growing out of the use of the trephine as a surgical procedure is, in my belief, much overrated. Opening the skull with a conical trephine in an ordinarily deft hand is in itself attended with little danger, and is an operation that should intimidate neither patient nor surgeon. Let timorous ones read the following from John Bell's *Principles of Surgery*: "I, the underwritten, Philip, Count of Nassau, hereby declare and testify that Mr. Henry Chadbourne did trepan me in the skull twenty-seven times, and after that did cure me well and soundly."

PRINCETON, IND.

VOL. XXVII.—23

Reviews.

The Pathology and Treatment of Diseases of the Ovaries.

By LAWSON TAIT, F. R. C. S., Edin. and Eng., Surgeon to the Birmingham Hospital for Women and Consulting Surgeon (for Diseases of Women) to the West Bromwich Hospital, Fellow of the Royal Medico-Chirurgical Society, Member of the Surgical Society of Ireland and of the Medico-Chirurgical Society of Edinburgh, etc., Honorary Fellow of the American Gynecological Society. Fourth edition, rewritten and greatly enlarged. New York: William Wood & Company. 1883. Pp. 357.

It is now ten years since Mr. Tait published the first edition of his book, and in his preface to this fourth edition he announces that his greatly increased experience has caused him to change his opinions on some points, but has more frequently induced him to amplify what he has heretofore published. In the present, as in the past, he writes positive opinions; and while not failing to acknowledge the lead of other surgeons in undisputed cases, he is not slow to claim originality and leadership where he presents grounds to justify his claim; but it is not every confrère in this specialty that concedes to him all that he asserts is his. Such disagreements are not, with him nor with others, any disparagement of his qualifications as a discerner and executor of new things, nor of his ability to teach good things, both old and new.

Specialists will examine Mr. Tait's new edition for his freshest views touching a branch of medicine that is on a rapid advance in practical application; but the general practitioner will find it an excellent guide for all things that pertain to human ovaries so far as known. The first chapter deals with the anatomy and physiology of the ovaries, and announces that, notwithstanding the very great advances that have been made

in both within twenty years, our knowledge of each still leaves much for future determination. Subsequent chapters treat of the development and malformations of these organs, and then of the various pathological conditions that befall them, and of the present resources of science for their relief. The sixth and last chapter is entitled "Recent Extensions of Abdominal and Pelvic Surgery;" and the general practitioner who has skipped the gynecological and special surgical column of his medical journal for two or three years will find here something of a surprise in the nature, extent, and success of this comparatively new field of surgical cultivation. Early in the chapter are these words, "I give details of some of the cases in which I have performed operations which, until three or four years ago, I regarded as quite unjustifiable, but which I now regard as the legitimate outcome of our increased success in the removal of ovarian tumors." The author then lays down this surgical law in italics, "*that in every case of disease in the abdomen or pelvis, in which the health is destroyed or life threatened, and in which the condition is not evidently due to malignant disease, an exploration of the cavity should be made.*" And in support of this law he educes his own experience.

From November 1, 1880, to August 5, 1882, he performed one hundred and one ovariectomies, with ninety-eight recoveries, three deaths. From October 18, 1879, to September 29, 1882, he removed the uterine appendages for myoma in forty-five cases, with two deaths. From May 23, 1879, to October 12, 1882, he removed the uterine appendages for hydrosalpinx in twenty-four cases, all recovered. From October 11, 1879, to August 17, 1882, he removed the uterine appendages for pyosalpinx in twenty cases, all recovered. And he gives the "following list of operations of various kinds which have directly issued from the great advance in ovariectomy in 1878, all of which, with one exception, have been successful: Nephrectomy, one; nephrotomy, eight; cholecystotomy for gall-stone, four; hepatotomy for hydatids of liver, ten; laparotomy for pelvic abscess, twenty; laparotomy for abscess of spleen, one; lapar-

otomy for hydatids of peritoneum, four; laparotomy for chronic peritonitis, eight; laparotomy for acute peritonitis, two; laparotomy for removal of extra-uterine pregnancy, seven; in all, sixty-five." This catalogue sure enough does advertise great progress in abdominal surgery in the last five years, and intimates that still further advances are in the close future.

J. F. H.

A Practical Treatise on Diseases of the Skin, FOR THE USE OF STUDENTS AND PRACTITIONERS. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago; Dermatologist to the Michael Reese Hospital, Chicago; and one of the Physicians to the Infirmary of the Chicago Home for the Friendless. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo. Pp. 572.

"The increasing recognition of the gravity of many cutaneous disorders, and of the importance of their accurate study, is shown by the rapidly augmenting number of observers in this department of medicine, and by the numerous valuable contributions constantly made to it, both in this country and abroad. For the convenience of the general practitioner, it therefore becomes necessary, at shortly recurring intervals, that some one should attempt the task of presenting, in a comprehensive form, the results of the latest observation and experience." Such is the author's statement of the incentives that moved him to publish a new volume on the diseases of the skin, and the attentive observer of the progress of dermatological science will accord to him correct conclusions in the observations submitted in the quoted paragraph. It is not to the credit of the profession that so large a proportion of general practitioners are so inadequately informed concerning those external diseases which, being open to ocular inspection in addition to the means of investigating internal diseases, one would expect to find them in possession of the most complete knowledge. There is, however, in this connection something of rational apology in the statement

that it is because so few ordinary skin diseases lead to a fatal result that so many practitioners give them so little careful consideration. And beside this, there has heretofore been so much obscurity in the pathology and so much failure in the treatment of disorders of the skin that many a good doctor, after long wrestling with the vexatious problems that promised exactitude, and not finding it, has, in despair, dropped into the routine that was the practice of his preceptor.

But specialists are revising our knowledge of the anatomy of the skin and of its physiology, and with this necessarily comes different views of pathology and improved methods of therapeutics. In the volume under notice Dr. Hyde presents the anatomy of the skin under the light of Heitzmann's investigations, as set forth in his recent work on microscopical morphology, which is, in some important particulars, quite different from the teachings inculcated up to the present time. But throughout the entire volume the author has brought his conclusions out of the knowledge derived from the latest studies by himself and others devoted to this specialty, inclusive of Kaposi, who is the present accomplished dermatologist of Vienna, fitly following after the illustrious Hebra.

Dr. Hyde's method of arranging his subjects is his own, but he adopts the classification of Hebra with a modification that he deems of practical benefit, denominating it "a clinical classification of diseases of the skin;" but he also gives the classification of the American Dermatological Association, because so generally recognized as a good one on a scientific basis, both in this country and abroad.

The book is commended to both student and practitioner as one containing the gist of dermatological science as known to the best of its disciples, presented in clear and precise language, the author appearing to be ambitious to deliver his views with a simple directness that shall be devoid of ambiguity, and to exhibit the moral courage of saying he don't know, when he lacks knowledge, making no effort to hide ignorance in clouds of fine-spun speculation.

There are sixty-six illustrative wood-cuts, two pages of bibliography, and a full index. The publishers' work is well done, even to noting a round dozen errata.

J. F. H.

A Manual of Chemical Analysis as Applied to the Examination of Medical Chemicals: A guide for the determination of their identity and quality, and for the detection of impurities and adulterations. Third edition, thoroughly revised and greatly enlarged. By FREDERICK HOFFMANN, A.M., Ph.D., Public Analyst to the State of New York, and FREDERICK B. POWER, Ph.D., Professor of Analytical Chemistry, Philadelphia College of Pharmacy. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo. Pp. 624.

The explicit declaration in the above title of the character and purpose of the book may be supplemented by the following extract from the preface to the present edition: "The third edition of this work has been thoroughly revised, and to a large extent re-written, in order to make it comply with the present compass of chemical knowledge, and also with the recently issued new editions of the pharmacopeias of the United States and of the German Empire." These will convey to the reader the author's estimated status of the book; and to declare that their estimate is apparently well founded, and that the volume is a valuable one in its department, is all that time and space are afforded to say. There are nearly two hundred illustrations, and the publishers' work is well done.

J. F. H.

An Index of the Practice of Medicine. By WESLEY M. CARPENTER, M. D., Assistant Pathologist to Bellevue Hospital, Instructor in the Pathological Laboratory, University of the City of New York, Secretary of the Medical Society of the County of New York, etc. New York: William Wood & Company. 1883. 16mo. Pp. 302.

Something over two hundred of the more common diseases, omitting syphilis and skin diseases, are here alphabetically ar-

ranged, briefly described, correctly diagnosed, orthodoxly prescribed for, and collected in a neat, gilt-edged pocket volume handsomely bound in flexible leather cover and back, with lap flap, adapted to be readily carried in the pocket. The printing is good, on thin, tough, clear paper, and there are as many blank leaves as printed ones alternating throughout the book, presumably to afford the novice an opportunity, when he has mastered the contents of the volume, to write out quite fully how inadequate he has found the work as an instructor in either the science or the practice of medicine. The book is apparently one of the best of its kind, but it belongs to a class that is always of doubtful utility. At best it can be but a reminder that a practitioner may carry with him when he calls on his patient; and if he has to consult it before he can intelligently prescribe, it will be an unreliable intelligence that he will prescribe by after such consultation.

J. F. H.

Diagnosis of Ovarian Cysts by Means of the Examination of their Contents. By HENRY JACQUES GARRIGUES, A. M., M. D., Obstetric Surgeon to the Maternity Hospital, Physician to the Gynecological Department of the German Dispensary, Fellow of the American Gynecological Society, Fellow of the New York Obstetrical Society, etc. New York: William Wood & Co. 1882. 8vo. Pp. 112.

Dr. Garrigues begins his book by detailing an epitome of a discussion that occurred during the first meeting of the American Gynecological Society, wherein the value of the microscope in diagnosing ovarian tumors by an examination of their contents was considered, which showed a wide diversity of views on the subject by the participants. This is followed by a review of English, German, and French ideas on the theme, still showing a lack of uniformity in conclusions.

The author then describes the physical, chemical, and microscopical characters of the contents of ovarian and many other cysts, the tables of examined cases aggregating ninety-seven,

and he arrives at this conclusion: "The examination of the fluid from abdominal tumors affords very valuable aid to diagnosis. By studying the physical, chemical, and microscopical characters it is almost always possible to diagnose ovarian cysts, even without knowing any thing about the patient, and of course still more so when the result is combined with the other features of the case."

J. F. H.

Physical Exploration of the Lungs by Means of Auscultation and Percussion: A course of three lectures delivered by invitation before the Philadelphia County Medical Society. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Bellevue Hospital Medical College, New York. Philadelphia: Henry C. Lea's Son & Co. 1882. Small 8vo. Pp. 83.

It was a handsome recognition of the eminence and worth of the venerable and veteran apostle of the physical exploration of the thorax, and one that did honor equally to the inviter and invitee, when the Philadelphia Society called the elder Flint from New York to give them lectures on the auscultation and percussion of the chest. These lectures were begun in November last, continued in December, and finished in January—one lecture a month. They contain about twenty-five thousand words; and it is safe to say that there is not in the English nor any other language the equal amount of clear, exact, and comprehensible information touching the physical exploration of the chest in the equal number of words.

Prof. Flint's language is precise and simple, conveying without dubiety the results of his careful study and ample experience, in such wise that the young will find it the best source of instruction, and the old the most pleasant means of reviving and complementing their knowledge in this behalf.

J. F. H.

Clinic of the Month.

THE SUPERIOR VALUE OF THE BROMIDE OF SODIUM.—Henry M. Field, M. D., in the Boston Medical and Surgical Journal, writes as follows:

More than ten years ago Dr. Edward H. Clarke, in conversation with the writer, expressed his sense of the slight value of the bromide of sodium. That such was his established opinion would appear from the following extract from his public writings: "M. Voisin regards its (referring to the bromide of sodium) physiological action and therapeutical value as equivalent, or nearly so, to the bromide of potassium. Dr. Amory has been led by his experiments to regard it as a less valuable therapeutic agent than the potassium salt. It possesses no decided advantages over the other bromides just named, and therefore it is not desirable to substitute it for them in the treatment of disease." I had a very high respect for Dr. Clarke's decisions upon all therapeutic questions, and had I not already had an experience which led me to question his correctness on this point I should probably have set aside the sodic bromide and contented myself with a more or less routine use of the bromide of potassium.

But every year since has the more confirmed my opinion of the superior value of the sodic salt. I have tried to observe carefully, because I have to teach others as well as form conclusions for myself. On the other hand, although druggists of wide observation, as the Gilman Brothers and S. A. D. Sheppard, have assured me that the relative sales of the bromide of sodium have greatly increased within recent years, yet my frequent observation of the practice of the profession satisfies me that physicians in general know very little of bromide medication except as accomplished by the bromide of potassium.

A physiological study of the two salts in question supports the following propositions:

1. The bromide of sodium, because it is a sodic compound, should be more congenial, less disturbing, to the fluids and solids of the body than its potassic congener.

2. The sodium salt, in extended use, should be less depressing to the heart, all potassic salts after a time tending to produce cardiac depression.

3. The sodic bromide is less offensive to the taste, much less irritating to the stomach.

4. The bromide of sodium should have equal if not superior general therapeutic power with the bromide of potassium, since while the former has a bromine per cent of seventy-eight, the latter has but sixty-six.

To which, it may be added, my clinical experience has brought me to the following conclusions:

1. The bromide of sodium has equal therapeutic power, throughout the entire range of medication (with possibly an exception), with that of the bromide of potassium.

2. Not only this, but the bromide of sodium has *superior therapeutic value*, both from the greater mildness of its physiological impression and because of additional therapeutic applications which, were we confined to the potassic salt, would be inconvenient if not impossible.

Perhaps my practical experience with the bromide of sodium can be best detailed by a brief discussion, in order, of my physiological propositions, with an explanation of the last clause of the second clinical conclusion. And, to refer to the first proposition, *what should be has been*, as respects the two bromides. An unfortunate bromide impression is not likely to be reached, is not so soon reached, and, if present, does not appear in so intense a form under the use of the sodic as from corresponding use of the potassic bromide. This applies to skin eruption and certain other features of bromism which will be mentioned a little later.

Secondly, many authorities consider the continued use of any potassic salt in considerable quantities calculated to weaken the heart, not to speak of deleterious action upon the blood. I do not get this influence from the bromide of sodium as I believe I used to get it from the potassic bromide. For example, I do not consider the conjoined use of digitalis as important as I did when I used little else than the bromide of potassium.

Again, thirdly, there is a marked difference between the bromides as concerns convenience of ingestion, and great preference to be given to the bromide of sodium. Foul tongue, fetid breath, deranged digestion, anorexia, etc., are less common and less extreme under the continued use of the sodic compound. I have had these unfavorable conditions developed to troublesome extent, and seen them largely

disappear, without necessity of suspending the bromide medication—which it might have been hazardous to do—by simple substitution of the sodic for the potassic bromide previously used. Indeed, in one case, the graver symptoms of cumulative action and toxic impression having been rather suddenly declared under the use of bromide of potassium; namely, a degree of aphasia and conditions simulating locomotor ataxia. Here medication was hardly at all suspended, but substitution of the bromide of sodium was made in equal quantity, and the unpleasant symptoms speedily disappeared. The difference in taste between the two bromides may be a matter of no little moment. As I have often said to my classes, I would challenge any one having a slight cold (and so with sense of smell impaired), having had set before him two specimens of chemically pure chloride of sodium and bromide of sodium, to certainly determine by taste which was the medicine and which the culinary article. A corresponding difference of impression as regards the two bromides is made upon the stomach.

On the other hand, the bromide of potassium is sharp and stinging, and although it be freely diluted has much of the “urinous” taste which writers attribute to ammonium chloride. An already irritable stomach is quite sure to be irritated by it; but of this later.

Finally, waiving the fourth proposition aside from its assertion, we come to a few facts answering to the second clinical conclusion. And first, bromide of sodium is pre-eminently the child’s bromide, as tannate of quinia is the “babe’s quinine.” It is much less disagreeable to the taste, and less likely to be objected to. In the case of the very young, children a few months or under two years of age, where small quantities of the remedy are all that is required, I have frequently followed the suggestion of the French, and seasoned the infant’s food with the bromide of sodium instead of with common salt; for example, a few grains added to the milk several times through the day or at bed-time. The occasions when we must disgust the young with offensive and bulky remedies are far too many. It is a good thing to avoid them when we can. Again, the babe will seldom object to two or four grains of the sodic bromide in a teaspoonful of water, sweetened or not. The bromide of potassium is another matter altogether.

For nausea and vomiting of the adult, and especially in the nervous female, occasioned by whatever common derangement of stomach or reflected disturbance, I have found bromide of sodium in ice-water (a half dram to the half tumbler) one of the most effective of remedies. It must of course be drunk slowly, a little at a time, as the

stomach can receive it, and it is an essential condition that a little ice be kept in the solution until it is all taken. I remember in one instance treating effectively three such cases in the course of the week. They were all night calls, but I avoided going out by sending the bromide with instructions how to use it, and in one case also ice from my refrigerator. I know of no other one remedy, not even morphia in minute doses, that will accomplish so much; and morphia may be objectionable on account of after-effect, which the bromide never is. I should despair of treating this class of cases with bromide of potassium; the taste would often insure its refusal almost before it had reached the stomach, in a case where the vomitive tract of impression and conduction involves not alone the surface of the stomach, but also esophagus, fauces, and even to the very mouth; or if the stomach could be induced to receive it, its positively irritative effect would soon occasion its rejection, and leave the patient worse than before any medicine was taken. Similar criticism applies to the choice of a bromide for sea-sickness.

Whether bromide of sodium has equal power with bromide of potassium in the graver neuroses, I am uncertain, and have not decided this question for myself by experience. Voisin's opinion, as cited by Dr. Clarke, has already been quoted, and few speak with equal authority upon any thing concerning the therapeutics of epilepsy. Ramskill believes the medicinal power of the two salts, in respect of epilepsy, stands as three to two in favor of bromide of potassium. It may well be that as the potassic bromide is more foreign to the system, as already said, so it may be more powerfully alterative when set in opposition to a grave neurosis. The question is similar to that of the relative remedial power of the iodides of sodium and of potassium; and here observers are far from being in accord. But for the manifold conditions, presented by a general practice, which require recourse to bromide medication as a simple hypnotic, either upon the single occasion or for repeated use, as a sedative and calmative in various nervous conditions, as an anti-spasmodic in mild chorea or pertussis, as a "comforter" (Clarke) in pneumonia and typhoid fever, as calculated to mitigate or remove the unfavorable impression made upon the sympathetic by opium and morphia, in all these and allied conditions I have found bromide of sodium capable of accomplishing all that could be accomplished by bromide of potassium, and frequently in a much more gentle and kindly and unobjectionable manner. Indeed, so emphatic has my experience been in this particular that whereas formerly I took up the sodic bromine with hesitation, the occasions nowadays are but few where I use any other.

THE HOT-WATER RETROJECTION IN THE TREATMENT OF GONORRHEA.—H. Holbrook Curtis, M. D., writes, in the Medical Record, April 21, 1883:

During the past twenty years in no disease has there been less advance made therapeutically than in the treatment of simple gonorrhea. Of late there have appeared in the London Lancet many articles upon this subject, but no especial claim has been advanced for any method that will effectually abridge the orthodox three weeks' limitation of this troublesome difficulty. I propose, without entering upon the discussion as to the probable bacterian origin of the malady, to explain a course of treatment that I have employed for two years with very excellent results.

Endoscopic examination reveals that a current of hot water passed continuously through the urethra primarily congests and secondarily renders anemic the mucous membrane, in the same way that a hot bath affects the fingers. It is observed also that the urethra, after being acted on for some time, will endure water of a temperature that can not be tolerated by the hand. Taking advantage of this fact, I have arranged an apparatus by means of which one is enabled to pass several quarts of hot water through the urethral canal from the prostatic portion outward, increasing all the time the temperature of the water until the thermometer oftentimes indicates 180° to 190° F. I have repeatedly passed ten quarts of water from behind forward in this manner, continuing the retrojection for some time after the point of toleration has been reached. This varies much in different persons. It remains then to pass a mild astringent solution through the same catheter that has been employed for the retrojection. Preferably I use a suspension of iodoform in a glycero-tannin solution in the following proportions:

R	Acidi tannici,	} aa ð ij ;
	Iodoformi,	
	Glycerinæ,	
	Aquæ,	
	Sig. Heat, shake, and inject.	

After the injection the catheter is withdrawn, and the patient is directed to return in twelve or twenty four hours, as the case may warrant.

As I intend shortly to publish the histories of some twenty cases of gonorrhea and gleet that have been treated in this way, I will here but briefly outline the method and results.

In twelve cases of undoubted acute gonorrhea the discharge has been entirely checked in three days. In two cases I have succeeded in aborting the disease by one prolonged (ten quarts) thermo-retrojection. In six cases the disease lasted six to ten days, while a case of chronic gleet that had made the round of the profession for nine months succumbed in seven days to dilatation and retrojection.

It has been noticed that cases that have been treated for some time with strong mineral injections do not respond nearly as quickly to the hot-water method. I have yet to see, however, a "fresh case" of gonorrhea in which no previous injection has been employed that will not recover within a fortnight if the retrojection is properly administered.

From a careful study of more than forty cases I claim for hot retrojection—

1. The course of the disease is shortened by at least two thirds, making the average limit of the case—viz. stoppage of the discharge—nearer one week than three.

2. The discharge immediately changes from a purulent to that of the nature of gleet, and is reduced to a very small quantity.

3. There is absence of chordee and pain in passing urine.

4. Stricture as a sequel is improbable.

5. The usual inconveniences of the disease are done away with.

A brief description of the apparatus employed is as follows: An ordinary wooden arm-chair is half-mooned in the front of the seat to admit a tall cuspidor. A pulley is rigged on the ceiling, by means of which a tin pail with a lamp beneath is elevated. A rubber tube, provided with a stop-cock and connection, leads from the pail, and at any time may be fitted to an ordinary No. 8 English flexible catheter. The necessity of having a catheter with a bulbous end, to prevent water passing into the bladder, is purely imaginary. I would also state that an ordinary Davidson's syringe may be used, the patient giving himself the retrojection from the pail on a chair beside him. This is not as convenient, however, as the gravity apparatus. When the water is of the proper temperature, say 120° F., the catheter is vaselined and introduced to within an inch of the prostate, connected with the rubber tubing, and the pail elevated to such a height that the flow is brisk. The lamp under the pail will keep the temperature of the water slowly increasing. The patient holds the catheter in position, and may read the morning paper until the water becomes uncomfortably hot. The lamp is then extinguished, and the retrojection proceeds at the point of toleration. After this has gone on for a sufficient time, a syringeful of the *injection* formulated above is thrown in and

the catheter withdrawn. If the patient is unable to come back at once, give him the same prescription for urethral injection, or slightly modified to suit the particular case, with directions to use it twice a day until he can return. As an adjunct to this, the only internal treatment I employ is bicarbonate of soda in five-grain compressed tablets, to take ten daily. Heretofore my cases have been confined to private practice; but recently, at the kind invitation of Professor Sturgis, I had an opportunity to demonstrate this method at the Charity Hospital, where, I am told, the results have been so gratifying that Dr. Sturgis has promised to compile the statistics in regard to this mode of procedure, which seems so rational that it will undoubtedly supersede the ordinary injection treatment.

Several writers have advocated warm-water "irrigation" of the urethra in gonorrhea, and have claimed more or less success for their methods; but no one, to my knowledge, has shown any statistics that can compare with those obtained by prolonged progressothermal retrojection. More than a brief outline of the subject would be too lengthy for an article of this kind; but there is such a field for experiment afforded in this direction, I take this opportunity of placing some fragmentary data before the profession.

RHEUMATIC ENDOCARDITIS.—T. J. MacLagan, M. D., thus writes, in the *British Medical Journal*:

To one or two points in connection with the above subject, touched on in Dr. Sansom's Lettsomian Lectures, published in a recent number of the *Journal*, I would like to direct attention.

In speaking of rheumatic endocarditis Dr. Sansom quotes and indorses the two practical reasons which I give for the failure of the salicyl compounds to counteract the cardiac, as they do the arthritic, inflammation: first, that the cardiac mischief has generally commenced before the patient comes under observation; and, second, that rest, which is essential to the recovery of an inflamed organ, and which is easily got in a joint, is unattainable in the heart. The first reason makes prevention impossible; the second is a bar to successful treatment. But, though this is true, it does not express the whole truth.

That a joint generally recovers from rheumatic inflammation, and that the heart does not, is a statement which expresses the broad results of clinical experience, but expresses them in a manner which, from a pathological point of view, is bald and misleading. The truth

is (and striking as the statement may appear, it is absolutely correct) that every thing which recovers in a joint recovers also in the heart. The one structure in the heart which does not recover, the endocardium, is also the one which has no analogue in any of the structures of a joint. In studying the pathology and treatment of rheumatic endocarditis it is essential that this point should be kept before us; if we fail to do so we are sure to fall into error.

The parts which suffer in a joint in acute rheumatism are the fibrous ligaments and tendons and the synovial membrane. The parts which suffer in the heart are the fibrous rings and valves, the endo- and peri-cardial membranes, and occasionally the muscular substance.

The fibrous rings and valves are similar in nature and function to the fibrous structures of a joint. Each is apt to be the seat of rheumatic inflammation, and in both this inflammation is generally recovered from.

The pericardium finds its analogue in the synovial membrane. Each is very vascular, each secretes a lubricating fluid, and each has for its function the facilitating the movements of a solid body. Each too is apt to be the seat of rheumatic inflammation. In each the inflammatory process tends to spread; and in both the tendency is to recovery.

The endocardium has no analogue in a joint. There is nothing in a joint which bears the least resemblance to it, anatomical or physiological. It is a non-vascular membrane in which inflammation can not, and as a matter of fact does not spread. In nature and function it is identical with the lining membrane of the blood-vessels, with which it is structurally continuous.

When it is affected in acute rheumatism there is no general inflammation of its surface such as is found in the pericardium and synovial membrane; the mischief is limited to a small portion of one surface of the affected valve. I have elsewhere shown that the occurrence of the lymph deposit which constitutes the endocardial lesion in acute rheumatism and its limitation to one particular portion and to one surface of the valve are to be explained not by the direct action of the rheumatic poison on the endocardial lining but by the mechanical rubbing against each other of valvular segments, whose deeper fibrous structures are the seat of rheumatic inflammation and thickening. This thickening of their fibrous structure it is which makes the valves rub; and the rubbing it is which irritates and roughens the membrane that covers them externally. The inflammation and thickening of the

fibrous structures of the valve may be recovered from. What is not recovered from is the roughening of and the lymph deposit on its non-vascular endocardial covering. This is not recovered from because the continued action of the valve keeps up the rubbing and mechanical irritation, and because the want of blood-vessels in the endocardium prevents absorption. This is a condition over which no drug could possibly exercise any control. It is directly of mechanical and only indirectly of rheumatic origin.

But it is by no means certain that we may not in some cases, by the early and free administration of the salicyl compounds, prevent the inflammation and consequent thickening of the fibrous texture of the valve, which is the origin of all the mischief. If we see a case early enough, and give these compounds freely enough, we may prevent the heart from suffering as we undoubtedly do prevent joints from suffering. In no given case, indeed, can we be sure of having got this result; for the absence of heart-mischief can never be demonstrated to be due to the treatment. The possibility of such a result, however, is worth striving for, especially as the means of attaining it are also those called for in the interests of the joints. What is wanted is the speedy arrest of the rheumatic process. This object can be attained only by giving one of the salicyl compounds in large and frequently repeated doses.

This leads me to remark that my recommendations in this respect have not been acted up to. What I recommend is that from twenty to forty grains should be given every hour for six hours, or until pain is relieved (which it generally is within that time), and that the same dose should then be given every two hours till the pain is gone and the temperature at or near the normal (which is generally the case within twenty-four hours). After that the same dose is given at widening intervals of three, four, and six hours for ten to twelve days.

But, instead of giving it thus freely and largely, most observers are content to give only from fifteen to twenty grains every three or four hours. That is quite an inadequate dose and not nearly enough to give the full curative effects of the drug. I would again urge the use of the dose which I recommend. I do not exceed my right in asking that my treatment should be carried out in all its details before its results are subjected to criticism.

Salicin is the preparation to which I give preference, not because I regard it as superior to salicylate of soda as an anti-rheumatic, but because it may be given in large and frequent doses without causing such disturbance of the system as not unfrequently follows the use of

the salicylate, and necessitates its suspension. My experience too is that those treated by salicin (which is a bitter tonic) convalesce more rapidly than those treated by the salicylate.

There is an impression abroad that it is very expensive. It is not so. Two of the chief English manufacturers of it have told me that they are prepared to supply it to hospitals and dispensaries at 10s. 6d. a pound. Convalescence is so much more rapid under its use that I am not sure that it would not in the long run prove cheaper than salicylate of soda.

But whichever is employed, let it be given in large and frequent doses. I make this appeal in the interest of the heart as well as of the joints. Let every case of acute rheumatism be regarded and treated as one in which heart-complications may possibly be prevented, and it is probable that in some cases they will be prevented. But every hour is of importance, for it needs no argument to show that the danger to the heart is less in a case in which the course of the disease is arrested within twenty-four hours than it is in one in which three or four days is expended in the process.

The fact has never been accepted by the profession that the course of acute rheumatism may in many cases be arrested within twenty-four hours of the time that treatment commences. The recognition of that fact is the keystone to all possible success in the prevention of cardiac complications.

TREATMENT OF DIABETES MELLITUS.—James Tyson, M. D., writes in the Medical News upon this subject as follows:

Whatever may be the difficulties in the way of explaining the phenomena of diabetes from the stand-point of digestive derangement, that some such relation exists is shown by the result of *treatment*. For by far the most frequently successful plan of treatment is that which excludes saccharine and farinaceous articles from the diet. It occasionally happens that this fails to relieve the symptoms, and when this is the case we may infer that some serious lesion of the nervous system is at the bottom, or more likely, perhaps, that the liver has become secondarily so much altered that it can not resume its functions, and that now even albuminous foods are being converted into sugar. Of the selected food, that which gives the most satisfactory results is a diet of *pure skimmed milk*, or butter-milk. Our patient has been carefully tested on this system of diet. On referring to the notes, I discover that on October 30th he was passing fifty-six ounces

of urine, of a specific gravity of 1029, and containing eighteen grains of sugar per fluidounce. On the day before this he passed seventy-six ounces, specific gravity 1038 and containing twenty-three grains of sugar to the fluidounce. On the thirtieth day he was placed entirely upon a milk diet, and we had an immediate diminution in the amount of sugar passed. On November 1st there were only ten grains of sugar per ounce; the amount of urine passed in twenty-four hours still remained at fifty-six ounces. Replacing him upon a mixed diet, immediately the quantity of urine and the proportion of sugar rose, to be again reduced on restoring the skim-milk diet.

It is found sometimes that a patient is not able to bear a milk diet, although this occurs less frequently than might be supposed. Pure skimmed milk is to be preferred, chiefly because of its easier assimilation. Some observers, of whom Dr. Donkin is the chief exponent, claim that the skimmed milk has a special curative action, but I can not see any reason for this. All that is removed from it by skimming is the fat, and fat is not converted into sugar in the liver. It is most interesting to observe that under the use of large quantities of milk how much less urine is passed than fluid ingested. The body weight can easily be maintained on a milk diet, although it is impossible to lay down a rule as to absolute quantity required. I have known the weight to be maintained by two quarts per day, and I have known five and seven a day to be necessary. The milk is best administered at stated intervals and in fixed quantities. I always begin with eight ounces (an ordinary tumblerful) every two hours, increasing as required.

If a milk diet can not be borne, a restricted diet can be obtained, which is better than a mixed diet. A purely albuminous diet is almost unendurable for any length of time, but there are certain vegetables which contain but a small amount of sugar-producing substance which may be added to meat. Such are the "green" vegetables, including spinach, cabbage, tops of celery, green peas, beans, etc., as well as the acid fruits, and by a diet such as this the most surprising results may be obtained. It appears that the vegetable sugars, as those found in berries, are more easily assimilated than cane sugar. Even where a skim-milk diet is well borne, my practice, after the sugar has disappeared, is to gradually add other articles, in the shape of oysters, game, and green vegetables, watching the urine for any return of the sugar; and it is always important to keep a case under observation for some time after sugar has disappeared from the urine.

An article of food which is much missed by some is *bread*, and it

is scarcely necessary to say that it is one of the most objectionable, because of the large amount of starch it contains. And I regret to say that I have not found gluten bread a satisfactory substitute. A recent experience will illustrate. I have now under my care a lady who had been for nine months under treatment for diabetes before I saw her, but in whose case the pure skimmed milk had never been tried. She had finally, in despair of recovery, been allowed to take any thing she wanted, and when I first saw her was drinking a quart of champagne daily to quench her thirst. It is needless so say this was discontinued, and she was put upon a pure skim-milk diet, and an unlimited amount of Apollinaris water. In ten days the sugar had disappeared, and shortly thereafter I permitted the gradual addition of other articles of diet, including green vegetables. All went well until she asked to be allowed to take some gluten bread, which I permitted. In three days I examined the urine, and sugar was again present. The gluten bread was discontinued, and in three days the sugar had disappeared. The resumption of gluten bread was followed by the return of sugar, and its withdrawal by the disappearance of the sugar. Such an experiment is, I think, conclusive. Of course it is not claimed by the makers of gluten flour that it is completely free from starch, but as it is already a rather uninviting food in its present state, the inference is that when it is entirely freed of starch the bread made from it will be scarcely tolerable. At the same time, it must be admitted that the gluten bread contains less starch than the ordinary wheaten bread, and there may be cases in which the starch of the former is assimilated, when the quantity in the latter could not be. The same may be said of the so-called "bran bread," made of unbolted flour. With other substitutes for wheaten flour, as the almond flour of Pavy, bran flour, inulin, etc., I have had no experience.

Are drugs of any use in the treatment of diabetes? I believe they are, although if compelled to rely upon drugs or diet alone, I should prefer diet. The most efficient remedy is probably *codeia*, although I am almost afraid to say this, for a few months ago I should have given the palm to *ergot*, and until recently I have always used it first. The use of *ergot* is based upon scientific principles, since it is well determined that it exerts a contractile influence upon the walls of blood-vessels, thus counteracting hyperemia. I have frequently used it, and have no doubt whatever of its efficiency. The best preparation is the fluid extract, which is given in doses of from twenty drops to a fluid-dram four times a day. *Codeia* is not a new remedy in this disease, having been suggested by Dr. Pavy fifteen years ago. We have found

marked results from its use in the case before us. The plan I usually adopt is to begin with half a grain three times a day, gradually increasing the dose, watching its soporific effects, as well as that upon the pupil. I have given patients in this house as high as ten grains a day, and fifteen grains a day have been given. In this patient, after giving one and one half grains a day for a few days, we were struck with the smallness of the pupil, but on discontinuing its use for a short time we discovered that the patient naturally had a very small pupil.

You may ask, Have you ever cured a case with codeia? I can not say I have; possibly, perhaps, because I should be afraid to rely solely upon it or any other one drug. But such cases of recovery are reported. As is the case with all diseases difficult to cure, there is, in addition to those named, a long list which have been put forth as cures. *Bromide of potassium*, also an old remedy, has recently been again brought forward by the French school as peculiarly efficient. I can easily understand how, in a certain class of cases, it would be of value, as those due to hyperemia of the brain, cases which may be characterized as nervous. We know that emotional causes are often at the bottom of diabetes. Both mental anxiety and physical fatigue have been known to produce the disease, and when purely emotional causes have operated, the bromides may be beneficial, but I have never found them so.

Within the last few days the medical journals have published the treatment of Dr. Clemens, of Frankfort-on-the-Main, by a solution of what he calls *brom-arsen*, which is probably a bromide of arsenic. Dr. Clemens bestows the most extravagant praises upon the remedy; so extravagant, indeed, that I mistrust it, although arsenic itself has long had a reputation in the treatment of diabetes, and not without reason. I shall, however, make an early test of it. He makes it by adding bromine and arsenious acid to glycerine and water, in such proportions that one drop represents one forty eighth of a grain of bromide of arsenic. Clemens recommends it to be given, along with a selected diet, beginning with one drop three times a day and gradually increasing until eight or ten drops are given per day. He gives it in a given quantity until it ceases to have an effect, and then he increases it, one drop at a dose, until, as he claims, the disease is cured. He also recommends the use of the *constant current* from twenty to twenty-four cells, one pole being placed at the nape of the neck and the other over the liver. This has been recommended by other German therapeutists. I believe I have tried most of the other numerous remedies recommended in the books for diabetes, but have found them valueless as to specific effects.

Certain it is that we must make different classes of cases of diabetes, and we should never begin treatment until we have as nearly as possible classified our case in accordance with its course. There are cases which can be easily cured by a selected diet; others in whom, while a cure is apparently impossible, the disease may still be kept in abeyance for years, and the patient is practically well. Others again have had sugar in their urine for many years, and seemed not to be seriously affected by it. These are generally stout persons and past middle life. Clemens says, in the article referred to, that the disease in thin, spare persons, is generally due to some nervous lesion, and in stout persons to defective assimilation, and in this he is not far wrong. In other cases still, all treatment seems unavailing. The amount of sugar passed may be reduced by treatment, but the patient does not gain any strength. But I believe there are comparatively few cases which, if discovered sufficiently early, are not amenable to treatment. The disease is occasionally overlooked until it has existed for some time. It is well known that it is very much more serious in young persons—say under twenty years of age—than in adults. Yet within the past two years I have known a young girl of twelve years, under the care of one of my professional friends, recover completely.

Diabetic patients should be careful about permitting any surgical operation. One of the terminations of the disease is gangrene, to which there is a peculiar tendency, and any operation is apt to be followed by gangrene. A year ago a diabetic under my care in this house was blistered upon the foot, and serious sloughing followed. Cataract is not an infrequent complication, but the operation is not to be recommended, for the reasons above given.

INTRA-UTERINE INJECTIONS IN THE TREATMENT OF PUERPERAL SEPTICEMIA.—T. Gaillard Thomas, M.D., in *New York Medical Journal*, March 31, 1883:

The following case seems to me to illustrate what should be the accepted treatment of puerperal fever, or puerperal septicemia, at the present day. The case was that of a lady in the higher walks of life whom I was called to see, about a month ago, in consultation by her physician, a man of wide experience. She was a primipara, was taken in labor at four o'clock Sunday afternoon, and at nine o'clock in the evening was delivered of a female child, without any difficulty or assistance. Her physician examined the external genitalia carefully, and found no tear whatever. The nurse was instructed to syringe

out the vagina carefully the next day with carbolized water, which she did. The first forty-eight hours passed by without any bad symptoms at all, but, on visiting her on Tuesday morning, the physician found a temperature of 101° F., and in the evening it had risen to 102.5° . The next morning, the morning of the fourth day, the temperature was 103° , and the patient began to complain of very severe pain in the right iliac fossa. There had been no chill. At five o'clock in the afternoon the temperature was 106.5° in the mouth. The patient's appearance became wild, as of one who was about to have puerperal mania; the skin was hot, and she was crying out with pain, although she had received a good deal of morphine.

Having now been called to see the patient, I took the temperature in the mouth myself, and confirmed the record of her physician, that it was 106.5° . The pulse was 145. Making a vaginal examination, I found a bilateral laceration of the cervix uteri extending nearly up to the vaginal junction. Probably this extensive laceration partly accounted for the rapidity and the ease of the labor as occurring in a primipara. I urged that the uterus should be washed out with carbolized water at once, but her physician had never seen the method practiced, and was strongly prejudiced against it; he finally consented only because it was apparent that unless something decided was done the patient would soon die. Using the Chamberlain tube and the Davidson syringe, Dr. Jones, and afterward Dr. McCosh, continued to wash out the uterus with carbolized water every four hours during the night, and the next morning the temperature was found to have sunk from 106.5° to 101° ; the pulse had fallen from 145 to 120; the patient, who had been given opium quite freely during the night, declared that she was very much relieved. Indeed, the relief had been so extraordinary that they began to believe that the danger was not real at all; that some exceptional circumstance had occurred, and that there was no septicemia. The uterus was now washed out at longer intervals, but at once the temperature went up to 102° , 103° , 104° , and 105° , and the patient again began to look maniacal. The uterus was now washed out every three hours, opium was freely administered, ten grains of quinine were administered every eight hours, ice-water was passed through a coil of rubber tubing placed over the abdomen; and as long as this treatment was kept up the temperature did not rise above 101° or 102° ; but so soon as they ceased to wash out the uterus the temperature at once rose to 104° , and at times to 105° . This fact was proved by repeated trials.

After this treatment had been continued for ten days, a physician

remaining with the patient day and night, giving the injections every three hours, and thirty grains of quinine during the course of the day, it was believed to be time to stop it; but in less than twenty-four hours the temperature again rose to 105° . I mention the amount of quinine which was being taken particularly, so as to prove positively that there was nothing of a malarial character in the case at all. On the sixteenth day after delivery, the tenth day after the commencement of the high temperature, the intervals between the uterine injections were extended from three hours to four, then to five, six, and seven hours, and finally they were discontinued altogether, and at the same time the administration of quinine was given up and the coiled tubing was taken off. Opium was continued in small doses for a while longer, and the patient recovered entirely.

I wish to contrast this case with another which I saw just before—that of a woman who had been recently delivered of her third child. When I was called to see the patient the temperature was 106° ; she had been taken with violent pain in one iliac fossa, and had been put five days before pretty profoundly under the influence of opium, and a blister had been applied over the whole of the abdomen. Large doses of quinine had likewise been administered. When I saw the patient the use of intra-uterine injections was begun at once, but the patient lived only twenty-four hours, and died in a state of coma.

It seems to me that the time has arrived when puerperal septicemia should be treated upon just as simple a plan as septicemia of any other kind is, namely, by washing with some antiseptic fluid the surface where the disease originates—some fluid which will remove the poisonous material which is being absorbed, and also, so far as possible, neutralize its poisonous qualities. In brief, I would say that puerperal septicemia, with our present light on the subject, should be treated in the following manner: First, wash out the uterine cavity completely with some antiseptic fluid; second, quiet all pain by opium; third, get the peculiar influence of quinine upon the nervous system; and, fourth, keep the temperature, at all hazards, at or below 100° by the methods which we now possess. Three years ago, at the American Gynecological Society, which met in Baltimore, I took the ground which I take to-day regarding this subject, and only one gentleman in the entire society supported my view. Every other member who spoke referred to the dangers of introducing air into the uterine sinuses during the injection, etc. But I believe that the dangers attending the use of the injections are counterbalanced by the benefits to be derived. I do not think there is the least probability that

air will be introduced if a tube of large size—as large as the finger—is used. But when a catheter is employed there is some danger of inserting it into a sinus and introducing air and fluid together directly into the vessels.

MASSAGE WITH SUCCESSFUL RESULTS IN PHLEGMASIA ALBA DOLENS (By Kochman, Strasburg).—Frau Shaw, convalescent from puerperal fever, again became suddenly sick on the evening of the 30th January, 1883, with the appearances of fever and pain in the left leg, which increased toward morning. K. found upon examination, February 1st, temperature 101.3° F., pulse 96, the left leg very edematous throughout its entire length and very painful, under Poupart's ligament in the fossa navicularis a hard tumor, the size of a pigeon-egg.

The diagnosis was phlegmasia alba dolens as a result of thrombosis of the crural vein. Departing from the usual mode of treatment, with the exception of a laxative favorable in all such cases, the author employed massage with remarkable results. First, the left leg was laid upon an inclined plane, with the feet higher than the head. Then K. kneaded the limb, beginning with the foot, at first with gentle pressure, later somewhat more energetic, always paying special attention, however, to the inner muscles of the thigh, to the adductors, which had become as large as painful, and by their increased weight pulled upon the tumor. Upon them massage was made from below and within, upward and outward, and afterward the whole were raised so high by means of a sand-bag placed beneath that they were somewhat higher than the femur and the tumor formed by the thrombosis of the vena cruralis. In consequence of the relaxation of the swollen adductor and skin thus produced, circulation was better and the pain which had been very great ceased.

Surprised at the result of the first trial, Kochman kneaded the limb a second time the same day, followed the massage, however, by a Priessnitz bandage; he raised the foot upward with care, bandaging it with bandage a hand-breadth in width, then covered it as closely as possible with silk, and ended with a padded bandage. The next morning found bandage and bed

dripping wet, the swelling had gone down to a remarkable extent in the leg, only the adductors presented edema, and they only to a slight extent. While the patient remained quiet there was no pain and temperature was normal. The tumor had decreased to a marked degree, and the author now ventured to gently knead it as he had not done before, lest emboli should be formed. In the evening the same treatment was repeated, and a cup of inf. herb. jaborandi was given to promote perspiration.

On the fourth day after the beginning of the treatment the patient was out of danger; no pain, and the tumor only one third its original size. To-day, after twelve days, the tumor has entirely disappeared; the patient has gotten up and walked about with the aid of a cane. General condition good, color has become fresher, and strength increasing.

While the author recommends this method, it must not be forgotten that massage of the thrombotic spot demands extreme care and should only be made after the third sitting, and then very gently, so as not to give cause for the formation of an embolus by breaking the point of the thrombosis projecting into the vessel. (*Memorabilien.*)

CHLORAL POISONING.—What are the remedies to be employed in acute chloral poisoning? They are especially those designed (1) to sustain the action of the heart, such as ammonia and brandy; (2) to keep up the breathing by artificial respiration, if needed; (3) to keep the patient warm; and (4) to use electricity as a cutaneous stimulant. Thus far you would treat a case as an ordinary one of narcotic poisoning. But is there any remedy that will counteract the depressing effects of the chloral upon the nervous centers, and particularly the respiratory center? Yes; the remedy for this purpose is strychnia, which antagonizes the chloral. It may be used as we gave it here, hypodermically, one sixtieth of a grain every three hours at first; and it would have been given oftener, but it was not needed. Strychnia therefore is indicated as the physiological

antidote. It stimulates the centers which have been depressed by the chloral. When recovery takes place, it is usually rapid.

What should be the treatment of chronic chloral cases? Suppose that a patient like this says that the habit is growing upon him, and comes to you for advice, what course would you pursue? I would answer that you must reduce the dose gradually. As large doses of chloral are only given exceptionally, there will be less difficulty on this score than with opium; but as you reduce it I would strongly advise you to give strychnia or nuxvomica for its effects on the nervous system. It antagonizes the effects of the chloral, and acts as a tonic at the same time. Those nervous centers which are reduced in their activity by the paralyzing effects of the chloral are stimulated by strychnia. If you use strychnia you may stop the chloral almost at once without any bad effects being observed. I had a case in point last summer. A gentleman who had been taking chloral for some time found himself very weak, his will-power impaired, and he felt miserable. He determined to stop off entirely. He went to Atlantic City without a single grain of chloral. He took constant out-door exercise. He was sleepless for a time, but he was able to overcome his evil habit; and, although he had been using chloral regularly for eighteen months, he recovered entirely. It should be stated, however, that while giving up the chloral habit he took from time to time strychnia or nuxvomica. (Medical Times, March 24.)

FISSURE OF THE ANUS. (Thos. Hay, M.D., in Medical and Surgical Reporter, April, 1883.)—The value and efficacy of iodoform in fissure of the anus will bring this remedy into general use in the treatment of this painful and heretofore incurable lesion, without operation by the knife or forcible rupture of the sphincter-ani muscle.

As in cases involving the greatest danger, so with fissure of the anus—if the trouble can be cured by simple means, without suffering to the patient, and in reasonably due time, the operation of cutting or forcible rupture is not justifiable, and both

these means of radical cure must give way to the more simple, if such may exist. With the experience I have had in the use of the local application of iodoform in cases of fissure of the anus, I am encouraged to bring the value of this remedy to the notice of the profession in these cases. In their treatment with this remedy, the alvine evacuations should always be maintained in a soft condition; the bowels should never be allowed to become constipated or relaxed; the anus, and parts involved by the fissure, should be kept constantly clean and free from deposit and dry incrustations; and, with one or two evacuations a day, the case may be speedily cured by the local use of iodoform. It may be dusted, in *very fine* powder, upon and into the fissured parts, or applied in the form of ointment or suppository. The application of the simple powders, if properly prepared, three or four times a day after each evacuation, and in the intervals, is often sufficient. In some cases, however, the undiluted powder—although thoroughly powdered—causes some pain. In such the iodoform may be mixed with powdered gum acacia, if a powder be preferred, or may be made into an ointment with vaseline, or suppository with the oil of theobroma. Balsam of Peru, carbolic acid, and oil of peppermint, will moderate the intensity of the iodoform odor; but this can hardly be requisite for application in this situation. The application of the remedy may be followed by a little smarting, but soon after its use the sensibility of the parts becomes benumbed, and even defecation may go on without consciousness so far as concerns the development of pain during or after the process. That this remedy applied as above directed and indicated will cause complete unconsciousness of the act of defecation, I doubt—I have never witnessed such result in any case that has come under my notice, and still the benumbing influence of the remedy is decidedly potent. As in applications to the conjunctival surfaces of the eyelids, the first and most important factor in the successful and painless use of the remedy consists in the proper preparation of the powder. It should be made *very fine*, and not the smallest crystal be allowed to remain unpowdered. The neglect of this precaution

when applied to the eye has caused the most painful inflammation of the ocular and palpebral conjunctiva, and, applied thus imperfectly powdered to the anus, would likewise cause intense suffering and, as in eye-practice, would be abandoned and declared to be dangerous and valueless, if intelligence did not bring relief.

THE RESPIRATORY CENTER.—In a communication to the *Societe de Biologie*, M. Laborde stated that he had repeated the experiment of puncture of the apex of the calamus by means of a very delicate method. Superficial irritation of this point with a needle leads in two or three minutes to arrest of respiration, the heart continuing to beat. He does not agree with the majority of writers that this effect is due to reflex action, but holds that it is direct irritation. Promising further proof, he contented himself on that occasion with stating that division of the crura cerebri and of the pneumogastric nerves in nowise hindered the superficial puncture of the apex of the calamus from producing arrest of respiration, showing that the assumed intervention of the vagi or of the cerebrum was not necessary to the effect. Prof. Brown-Sequard, in speaking of this paper, said that in 1858 he showed that the "noeud vital" had not the importance attributed to it by Fleurens. His own experiments, extending over twenty-five years, pointed to the localization of the respiratory center in the gray matter at the apex of the calamus. At the same time the most potent region governing respiration was to be found at the root of the spinal accessory nerve, although the respiratory center extends over a considerable part of the cervical cord. (*Lancet*, March 31, 1883.)

PROF. MARAGLIANO observed that strychnia in doses of 0.002 to 0.003 *pro die* was effective in dilatation of the heart, but only temporary. (*Centrabl. f. Med. Wissensch.*)

Notes and Queries.

INDIANA STATE MEDICAL SOCIETY.—The Indiana State Medical Society held its thirty-third annual session at Indianapolis on the 8th, 9th, and 10th of May.

About two hundred delegates were present from the seventy county societies.

The secretary, Dr. Elder, reported the Society in a very flourishing condition, there being a membership of one thousand two hundred and sixty, with one or two exceptions the largest medical society in the country.

As a rule, the papers presented to the Society were above the average, and the discussion of the various papers was more general than heretofore.

The address of the president, Dr. Wm. H. Bell, on Some of the Hindrances to the Advancement of Medical Knowledge, and some of the Methods for Fostering its Interest, was most excellent, and Dr. Bell will no doubt issue it in pamphlet form.

Of course the question of the code of ethics came in for consideration, and the Society was true to itself and the American Medical Association, in that it instructed its delegates to Cleveland to vote against any change in the ethical code so far as consultation with irregular practitioners was concerned.

The Society adjourned to meet again the second Tuesday in May, 1884.

SURGICAL CUTENESS.—An instance of surgical "cuteness" is just recorded from Paris, the subjects of which are those miserable creatures, as stupid as they are ugly, yclept poodles. It has occurred to a veterinarian that by a slight modification of nature's arrangement the poodle's tail can be converted into a

convenient *handle*, wherewith the animal may, as occasion requires, be *lifted* from place to place. He shaves the dog neatly, scarifies the tip of its tail, makes an incision for the reception of the tip beneath the skin of the animal's back a little behind the fore shoulder by means of a traverse cut, then, lifting the dermic tissues with the handle of the scalpel until a sufficient excavation is made, he inserts the tip of the tail in the wound, and securely bandages it there. The result is a teapot sort of production that is eminently suggestive of the necessity for an appointment on the part of the Society for the Prevention of Cruelty to Animals. (London Medical News.)

HOMEOPATHY IN ENGLAND.—A homeopathic directory has recently been published in Great Britain. According to its pages there are two hundred and sixty practitioners of this class in Great Britain and Ireland, four only being in the latter country. As there are nineteen thousand nine hundred and forty-seven regular physicians, the ratio of homeopaths to regulars is for England and Wales, one to sixty-four; for Scotland, one to one hundred and seventy; and for Ireland, one to six hundred and nine. Most of the homeopaths are in large towns; thus, London has eighty-five, and Liverpool eleven. The contrast between the condition of things, as shown above, in England and in this country appears to be considerable. It is claimed that there are about six thousand homeopaths, so called, in the United States, giving a ratio to regular practitioners of about one to ten.

BURIAL.—There can, we think, be no question that the practice of burial, in the ordinary sense, must survive the impracticable device of cremation. Burning the dead is a simply revolting and socially unsafe procedure. It offends the feeling of human respect, and it would open the way for the commission of the worst crimes. Murder by poison would, in fact, be a perfectly facile way of "removing" enemies or victims, if cremation were legalized. The law can not sanction this mode of

disposal of the dead; and, obviously, no man should allow the body of a friend or relative to be cremated, unless the law of the land in which he lives and the State of which he is a subject permits the practice. (*Lancet*, March 31, 1883.)

UNIVERSITY OF PENNSYLVANIA — SPECIAL NOTICE. — For the convenience of those who propose to study medicine in the medical department of the University of Pennsylvania, in Philadelphia, there will be held each day at 1 o'clock during the last week in June, at the office of Dr. C. H. Mastin, 110 St. Francis Street, Mobile, Ala., an admission examination in English composition and physics. This examination will not be required of those who possess a collegiate degree or a certificate of qualification, such as is referred to on page 49 of the catalogue. Address, JAMES TYSON, M. D., Secretary Faculty of Medicine, University of Pennsylvania, Philadelphia. The examination for the Gulf States will be held this year at Mobile during the last week in June.

OBITUARY.—Died, suddenly, April 29th, Mary Lewis, wife of Dr. Geo. F. Shrady, the editor of the *Medical Record*, of New York. The beloved and honored help-mate has gone to reap the

“Lasting treasure
Of perfect service rendered, duties done
In charity, soft speech, and stainless days.”

FEHLING'S TEST TABLETS we have found a most convenient test for sugar. They are very uniform, and seem to keep well.



